

COMSTOCK HOMES DEVELOPMENT AND ELLWOOD MESA OPEN SPACE PLAN FEIR

4.4 BIOLOGICAL RESOURCES

Section 4.4

4.4.1 Existing Conditions

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4.4.1.1 Regional Overview

The project area for the proposed Comstock Homes Development and Ellwood Mesa Open Space Plan project encompasses the gently sloping coastal terraces on Santa Barbara Shores, Ellwood Mesa, the Coronado Butterfly Preserve, and the Phelps Ditch Trail. The habitats and wildlife resources within the project area reflect those found within the coastal plains of southern California. Previous and existing human activities related to recreation, grazing, oil development, farming, and other land uses are responsible for the large proportion of non-native species found in the project area. Grassland (non-native and native) and eucalyptus woodland are the dominant habitat types found in the project area. Several other habitat types also are present in smaller acreages. Table 4.4-1 lists habitats and acreages occurring within the proposed project areas under City of Goleta jurisdiction.

When evaluating the known or potential occurrence of special-status plants, animals, and habitats within the study area for this document, consideration has been given to their occurrence in adjacent open space areas, such as University-owned and County-owned lands to the east, as well other off-site habitats, such as Goleta Slough, and several coastal drainages west, north, and east of the project area. In this section, the term “development footprint” refers to the proposed Comstock Homes Development site. Common open space in reference to the Comstock Homes Development refers to the privately-owned, undeveloped lands to be preserved onsite. The term “Open Space area” refers to the proposed undeveloped lands outside the development footprint on the Santa Barbara Shores and Ellwood Mesa portions of the project area.

4.4.1.2 Methods

Existing literature was reviewed to identify previous documentation of biological resources within the project area (Calvert, 1991; ESA, 1992; Ferren, 1980; Holmgren, 1994; Hunt, 1987; Lehman, 1994; Meade, 1999; Mullen, 2001; Nagano, 1982; Nagano and Lane, 1985; Nagano and Sakai, 1987; Pierson et al., 2002; SAIC, 2000a,b; SAIC, 2001; Sandoval, 2003; Storrer and Philbrick, 1998; Thompson, 1981). Studies of particular species or groups of species were reviewed to gain a regional overview of species that potentially occur in the project area because of known occurrence in the region and presence of suitable habitat within the project area (Beedy et al., 1991; Eriksen and Belk, 1999; Fugate, 1993; Hall, 1981; Hunt, 2001; Jennings and Hayes, 1994; Lehman, 1994; Stebbins, 2003; Swift et al., 1989; Williams, 1986. A search of the California Department of Fish and Game (CDFG) Natural Diversity Data Base (NDDDB) was conducted to identify historic records of special-status species and habitats. Knowledgeable local biologists were interviewed regarding the occurrence of special-status plants and wildlife in the project area (Ball, 2003; Daniels, 2003; Hubbard, 2004; Hunt, 2002; Sandoval, 2003; Storrer, 2003). Aerial photos and maps were utilized to identify resources and historic trends of land

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Table 4.4-I. Habitat Acreages¹

Habitat Type	Comstock Development Footprint ²	Ellwood Mesa ^{3,4}	Santa Barbara Shores ³	Coronado Butterfly Preserve	Neighborhood Trail	Phelps Ditch Trail	Total
Aquatic Types							
Southern Vernal Pool	0.0	1.5	0.5	0.0	0.0	0.0	2.0
Coastal Salt Marsh	0.0	.01	0.0	0.0	0.0	0.0	0.1
Coastal Freshwater Marsh	1.2	0.1	0.6	0.0	0.0	0.0	1.9
Southern Riparian Scrub	0.1	0.0	0.6	0.0	0.0	0.1	0.8
Southern Riparian Forest	0.1	0.3	0.3	1.2	0.6	0.5	3.0
Total Aquatic	1.4	2	2	1.2	0.6	0.6	7.8
Native Terrestrial Types							
Venturan Coastal Sage Scrub	0.0	0.0	0.3	0.7	0.1	0.0	1.1
Coyote Bush Scrub	2.8	8.6	6.3	0.1	0.0	0.0	17.8
Native Grassland	0.4	32.2	0.9	0.0	0.0	0.0	33.5
Southern Foredune	0.0	3.1	0.0	0.0	0.0	0.0	3.1
Southern Dune Scrub	0.0	0.4	0.0	0.0	0.0	0.0	0.4
Southern Coastal Bluff Scrub	0.0	7.4	3.4	0.0	0.0	0.0	10.8
Oak Woodland	0.0	0.0	0.0	0.3	0.1	0.0	0.4
Total Native Terrestrial	3.2	51.7	10.9	1.1	0.2	0.0	67.1
Non-Native Terrestrial Types							
Eucalyptus Woodland	2.7	24.7	22.9	3.1	8.5	0.0	69.1
Ornamental	0.1	0.1	0.1	0.1	0.5	0.0	0.9
Non-native Grassland	27.1	47.5	42.5	3.8	0.4	0.0	119.5
Ruderal	0.0	1.6	0.0	0.0	1.8	0.4	3.8
Total Non-Native Terrestrial	29.9	73.9	65.5	7.0	11.2	0.4	187.9
Other							
Sand	0.0	9.9	1.3	0.0	0.0	0.0	11.2
Disturbed	1.2	0.1	0.5	0.0	0.0	0.3	2.1
Paved Roads	0.0	0.0	0.0	0.0	0.4	0.0	0.4
Total Other	1.2	10.0	1.8	0.0	0.4	0.3	13.7
Total Acreage	35.7	137.6	80.2	9.3	12.4	1.3	276.5

¹ The acreages are based on GIS calculations and are rounded to the nearest 0.1 acre.

² The housing development would disturb 18 of the 35.7 acres within the Comstock Homes Development site. The remaining 17.7 acres would be privately owned common open space. The privately owned open space areas include the aquatic habitat types, surrounding wetland buffer, most of the eucalyptus woodland, and native grassland.

³ Santa Barbara Shores, Ellwood Mesa Doty Parcel, and the Neighborhood Trail are part of the proposed undeveloped Ellwood Mesa Open Space and total 231.5 acres.

⁴ The Ellwood Mesa sub-area includes the 1-acre Doty Parcel.

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uses. Following a careful study of the existing literature, focused site visits were made to confirm and/or re-map resources.

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Aquatic and terrestrial habitats are characterized based on the Holland (1986) classification system. Habitat descriptions and maps from existing literature were utilized during the review of the biological conditions within the project area. The habitat map layers from existing literature were re-classified to the Holland system for consistency purposes. Following re-classification, relevant habitat map layers were incorporated into a new database and applied over a September 2002 high resolution aerial photo for complete coverage of the project area. The aerial photo and previous survey habitat layers were printed at 1-inch equals 200 feet for field verification.

Field surveys were conducted within the Comstock Homes Development and Open Space Plan area by URS Corporation biologists in July through September 2003 to verify and update previous surveys in the project area. Field methods included pedestrian surveys within native and non-native habitats. Specific boundaries of habitats were refined and, where the previous survey classifications overlapped, modifications were made to clarify the boundary. Habitats were re-mapped to reflect a 50-foot-minimum mapping unit with the exception of mapping smaller vernal pools, native grassland patches and jurisdictional wetland boundaries, where mapping was more precise. Habitat acreages were calculated using Geographic Information System (GIS) technology. During the pedestrian surveys, sign (e.g., individuals, dens, burrows, nests, scat, tracks, pellets, skeletal remains) of wildlife species were recorded.

Wetlands and “waters of the United States” under jurisdiction of the U.S. Army Corps of Engineers (ACOE) and wetlands subject to regulation under the California Coastal Act were delineated in February, March, and April 2000 by SAIC biologists (SAIC, 2000a). Their methods involved walking parallel transects spaced several meters apart to observe areas of standing water and areas with hydrophytic vegetation. The wetland delineation was conducted within in Santa Barbara Shores within the proposed boundary of the Comstock Homes Development. Soils were examined at 41 locations to determine the presence of hydric soils on the properties. Geographic coordinates of the boundaries of the potential wetland areas were established using Differential Global Positioning System (DGPS) equipment. The DGPS data were then downloaded and areas representing potential wetlands (including vernal pools) were plotted on a map, as presented in the wetland delineation (SAIC, 2000a).

The distribution of native perennial grasses within the survey areas was evaluated during field visits in June 2000 by LSA Corporation biologists (SAIC, 2000b). Their methods involved identifying areas where native grasses comprised at least 10 percent ground cover. Small patches of native grasses (smaller than approximately 10 feet in diameter) clearly isolated from other patches of native grasses were not mapped. Areas of native grasses were mapped in the field using a backpack-mounted DGPS.

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Section 4.4 4.4.1.3 **Aquatic and Terrestrial Habitat Types and Conditions**

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4.4.1.3.1 Aquatic Habitats. Five aquatic habitat types occur within the proposed residential and open space plan areas under the City of Goleta's jurisdiction: southern vernal pool, southern coastal salt marsh, coastal freshwater marsh, southern riparian scrub, and southern riparian forest. Refer to Figure 4.4-1 for the location of mapped aquatic habitat distribution.

Southern Vernal Pool. Vernal pools form as winter rains fill topographic depressions where underlying claypan layers prevent the water from percolating through to the subsurface (ESA, 1992; Thompson, 1981). Eventually these pools become dry due to subsurface drainage, evaporation, and plant evapotranspiration, remaining dry throughout the summer until late fall and winter rains again initiate pool formation. Southern vernal pool habitats are characterized by particular plant associations that are adapted to alternating wet and dry conditions (Thompson, 1981; Zedler, 1987). Such plant species characterizing vernal pools include coyote thistle (*Eryngium yaseyi*), wooly heads (*Psilocarphus brevissimus*), and popcorn flower (*Plagiobothrys undulatus*) (SAIC, 2000a). These species generally decrease in abundance toward the outer margins of pools where grasses become dominant.

Vernal pools within the project area are generally small in area, only a few inches deep, and are dominated by ephemeral annual and perennial hydrophytes such as wooly heads, coyote thistle, common spikerush (*Eleocharis macrostachya*), lowland cudweed (*Gnaphalium palustre*), southern tarplant (*Hemizonia parryi* ssp. *australis*), curly dock (*Rumex crispus*), toad rush (*Juncus bufonius* var. *bufonius*), loosestrife (*Lythrum hyssopifolia*), Mediterranean barley (*Hordeum marinum* ssp. *gussoneanum*), Italian ryegrass (*Lolium multiflorum*), and rabbitsfoot grass (*Polypogon monspeliensis*). All of the ponds formed on flat mesas appear to have been naturally formed and exhibit little or no evidence of altered hydrology. Some are disturbed from previous remediation activities that left the ground surface uneven in graded areas making the boundaries between the pools unclear. Vernal pools are scattered throughout the flat mesas and intergrade with the non-native annual grassland and native grassland habitats and total 2 acres, occurring on Ellwood Mesa and Santa Barbara Shores.

Southern Coastal Salt Marsh. Southern coastal salt marsh is dominated by halophytic (salt tolerant) species. Most species in this habitat type are active in summer and dormant in winter and occur in bays, lagoons, and estuaries along the coast (Holland, 1986). Salt marsh occurs in a small patch within Devereux Creek west of the Ocean Meadows Golf Course at the northeastern edge of Ellwood Mesa and totals 0.1 acres in the project area. Dominant species include pickleweed (*Salicornia virginica*), saltgrass (*Distichlis spicata*), alkali heath (*Frankenia grandifolia*), and sow thistle (*Sonchus asper*).

Coastal Freshwater Marsh. Coastal freshwater marsh is dominated by perennial emergent monocots and typically form completely closed canopies in perennially wet areas (Holland, 1986). Freshwater marsh occurs at sites with relatively little water current, and where there is prolonged saturation, permitting the accumulation of deep, peaty soils. Devereux Creek is a

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Figure 4.4-1

Mapped Aquatic Habitat Distribution

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large, intermittent, flat-bottomed drainage. Beyond the canopy of the eucalyptus woodlands, Devereux Creek is vegetated with wetland plants including bulrush (*Scirpus californicus*), narrowleaved cattail (*Typha domingensis*), umbrella sedge (*Cyperus eragrostis*), rush (*Juncus* sp.), ditch grass (*Paspalum* spp.), creeping bentgrass (*Agrostis stolonifera* var. *palustris*), rabbitsfoot grass, alkali rye (*Leymus triticoides*), meadow barley (*Hordeum brachyantherum*), and sow thistle (*Sonchus asper*). Coastal freshwater marsh totals 1.9 acres within the project areas under the jurisdiction of the City of Goleta.

Southern Riparian Scrub. Southern riparian scrub is often found in very dense thickets adjacent to creeks and ponded areas, and in less dense stands near seeps and areas with high water tables. This habitat is usually associated with areas of loose, sandy alluvium, and requires frequent flooding or scouring to prevent succession to a riparian forest dominated by cottonwoods and sycamores (Holland, 1986). This habitat occurs along Devereux Creek, tributaries to Devereux Creek, drainage ditches, and gullies, and Phelps Ditch totaling 0.8 acre within the project area. Dominant species include arroyo willow (*Salix lasiolepis*) shrubs with occasional patches of mule fat (*Baccharis salicifolia*), Himalaya blackberry (*Rubus discolor*), canary grass (*Phalaris canariensis*), bristly ox-tongue (*Picbris echioides*), rabbitsfoot grass, and curly dock.

Southern Riparian Forest. Southern riparian forest is a tall, open, broadleaved winter-deciduous habitat typically occurring along rivers and streams (Holland, 1986). The dominant species require moist, bare mineral soils for germination and establishment. This habitat type is poorly developed within the project area and includes only 3 acres of coverage. Arroyo willow, Fremont cottonwood (*Populus fremontii*) and western sycamore (*Platanus racemosa*) occur in isolated patches within Devereux Creek, tributaries to Devereux Creek, and Phelps Ditch. Little to no understory vegetation occurs within this habitat in the project area. Where understory vegetation is present, representative species include mostly non-native grasses and forbs.

4.4.1.3.2 Native Terrestrial Habitats. Seven native terrestrial habitat types occur within the project area: Venturan coastal sage scrub, coyote bush scrub, native grassland, southern foredune, southern dune scrub, southern coastal bluff scrub, and oak woodland. Figure 4.4-1 maps the locations of native terrestrial habitats in the project area.

Venturan Coastal Sage Scrub. Drought-deciduous, soft-leaved, aromatic shrubs dominate Venturan coastal sage scrub (Holland, 1986). This habitat occurs on dry, more or less rocky slopes, often at low elevations. It is common within the south coast region below 3,000 feet. Small isolated patches of Venturan coastal sage scrub frequently intergrades with non-native annual grassland and coyote bush scrub in the project area. The most characteristic species found within the project area are coyote brush (*Baccharis pilularis* ssp. *consanguinea*), California sagebrush (*Artemisia californica*), bush sunflower (*Encelia californica*), and giant rye grass (*Leymus condensatus*). Other less common species including saw-toothed goldenbush (*Hazardia squarrosa*), seacliff buckwheat (*Eriogonum parvifolium*), and morning-glory (*Calystegia macrostegia*). This habitat type occurs in small patches on the flat mesa and along the coastal bluffs and totals 1.1 acres.

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Section 4.4 **Coyote Bush Scrub.** Coyote bush scrub is a woody habitat dominated by coyote brush and typically occurs on loamy soil. This habitat is an important component of grassland communities, occurring in both relatively dense stands and as individual shrubs creating a mosaic pattern with the grassland habitats throughout the project area. Most of the larger stands of this native shrub are localized along the ephemeral drainages and swales where increased water availability probably increases their ability to compete with the annual grasses, especially during seedling establishment. This scrub habitat totals 17.8 acres in the project area. Other less dominant species that occur in the coyote bush scrub habitat include coastal goldenbush (*Isocoma menziesii* var. *vernonioides*), brome grasses, purple needlegrass (*Nassella pulchra*), and green everlasting (*Gnaphalium californicum*).

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Native Grassland. Native grassland habitat is a mid-height (to 2 feet) grassland dominated by perennial, tussock-forming purple needlegrass (Holland, 1986). Native and introduced annuals occur between the perennials, often actually exceeding the bunchgrasses in cover. Native grasslands usually occur on fine-textured (often clay) soils, moist or even waterlogged during the winter, but very dry in the summer. Historically, native grasslands were much more widespread throughout California than today. The introduction of non-native grasses and forbs (wildflowers), livestock grazing, and alteration of the community's natural fire regime are factors that resulted in the displacement of native bunchgrass, other native grasses, and forbs by introduced species.

Five native grass species occur in the project area and include alkali rye (*Leymus triticoides*), purple needlegrass (*Nassella pulchra*), meadow barley (*Hordeum brachyantherum*), blue wild rye (*Elymus glaucus*), and California brome (*Bromus carinatus*). Purple needlegrass is the most common native grass and generally grows in relatively pure stands, occasionally intermixing with other native grass species, particularly meadow barley. A particularly extensive stand occurs along the eastern one-third of the Ellwood Mesa parcel. Meadow barley occurs as small clumps, and other species (including non-native grasses) are frequently mixed in the meadow barley stands. Two subspecies, *Hordeum brachyantherum* subsp. *brachyantherum* found in moister areas and *Hordeum brachyantherum* subsp. *californicum* found in drier areas, are known to occur on Ellwood Mesa. Alkali rye grows in dense patches in areas with moist soils. Blue wild rye is generally found on drier sites than alkali rye and is uncommon in the project area. California brome is also relatively uncommon. A total of 33.5 acres of native grasslands occur within the project area.

Southern Foredunes. Southern foredunes consists of perennial herbs and low-growing shrubs that occupy eolian (wind-blown) beach sand and receives salt spray from steady onshore sea breezes (Holland, 1986). It occurs along the immediate coast and intergrades with open beach sand on the ocean side and coastal scrub on the coastal bluffs landward. This dune habitat has been impacted due to the high degree of recreational use that occurs on both the dunes and beach. Dominant species of the southern foredunes habitat in the project area include sand verbena (*Abronia umbellata*) and beach bursage (*Ambrosia chamissonis*). Other common and characteristic plants include European rocket (*Cakile maritime*), beach primrose (*Camissonia cheiranthifolia* ssp. *suffruticosa*), hottentot fig (*Carpobrotus edulis*), sea fig (*C. chilensis*), and New Zealand spinach (*Tetragonia tetragonoideis*). Naturalized iceplant or hottentot fig and sea fig,

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invasive exotic plants, have colonized portions of this community along the beach and on the coastal bluffs (Sandoval, 2003). This habitat comprises 3.1 acres, occurring at the sandy beach-coastal bluff transition zone.

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Southern Dune Scrub. Southern dune scrub consists of soft woody shrubs with a continuous to open canopy and a sparse ground layer (Holland, 1986). It occurs in areas of sand accumulation along the coast, but usually farther back than the foredune. Characteristic species within the project area include saltbush (*Atriplex lentiformis*), croton (*Croton californicus*), happlopappus (*Haplopappus venetus*), lemonade berry (*Rhus integrifolia*), coyote bush, morning glory (*Calystegia macrostegia*) and California sagebrush, while non-natives such as iceplant, fennel (*Foeniculum vulgare*), black mustard (*Brassica nigra*), non-native grasses, and vetch (*Vicia* spp.) are common in disturbed areas. This dune habitat has been impacted due to the high degree of recreational use that occurs on both the dunes and beach. Dune scrub habitat occurs on the coastal bluffs for a total of 0.4 acre.

Southern Coastal Bluff Scrub. Dwarf shrubs, herbaceous perennials, and annuals dominate southern coastal bluff scrub with a varying degree of succulence (Holland, 1986). It occurs on exposed to nearly constant winds with high salt and moisture content. The soil is usually rocky and poorly developed. The density of the vegetation varies with the topography. It ranges in density from the sheer cliff faces completely lacking vegetation to areas that are less steep and support dense stands of characteristic coastal bluff scrub. Southern coastal bluff scrub occurs on the steep coastal bluff for a total of 10.8 acres. The dominant species of this habitat type in the project area are Brewer's saltbush (*Atriplex lentiformis* ssp. *breweri*), lemonade berry, and seashore blight (*Suaeda californica* var. *taxifolia*). Other representative native species of this community include coyote brush, sagebrush, haplopappus, and seacliff buckwheat (*Eriogonum parvifolium* var. *parvifolium*). Portions of the coastal bluff habitat have been degraded by foot and bicycle traffic where a number of trails provide access to the beach. This disturbed area supports non-native species of which fennel, pampas grass (*Cortaderia jubata*), hottentot fig, and New Zealand spinach are the most common.

Oak Woodland. Oak woodland typically occupies north-facing slopes, valley and canyon bottoms, and the outer edges of stream courses where soil is well developed (Holland, 1986). Oak woodlands typically are open and sunlit because the 30-foot tall canopies touch, but seldom overlap. Succession requires a long time because oaks are slow growing, long-lived trees requiring 60 to 80 years to mature. Within the project area, oak woodlands comprise 0.4 acre and are dominated by coast live oak (*Quercus agrifolia*) with an open understory dominated by annual grasses. The oak woodland habitat occurs in small patches on the Coronado Butterfly Preserve in a restoration site.

4.4.1.3.3 Non-Native Terrestrial Habitats. Four non-native terrestrial habitat types occur within the project area: eucalyptus woodland, ornamental, non-native grassland, and ruderal. Figure 4.4-1 maps the location of non-native terrestrial habitats in the project area.

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Section 4.4 **Eucalyptus Woodland.** *Eucalyptus* woodland is a non-native habitat community dominated by an invasive tree introduced to southern California from Australia around the turn of the century. **Biological Resources** It has spread widely throughout natural and landscaped communities, due primarily to its status as a fast-growing, beautiful tree, and to its tenacious nature and affinity for southern California's Mediterranean climate. Many large stands of mature eucalyptus trees along the coastal bluffs in Santa Barbara County comprise winter roosting sites for monarch butterflies (Nagano and Sakai, 1987).

Large stands of eucalyptus woodland occur within the project area forming windrows on the western and eastern perimeters of the proposed Comstock Homes Development/northern Santa Barbara Shores property and bordering Devereux Creek and its tributary through the Coronado Butterfly Preserve. Eucalyptus woodland also forms small stands of wind-sculpted trees on the bluff tops. The project area supports a total of 61.9 acres of eucalyptus woodland habitat. Three species of eucalyptus occur within the project area including the more dominant blue gum (*Eucalyptus globulus*), and the less dominant lemon-scented gum (*E. maculata* var. *citriodora*), and red ironbark (*E. sideroxylon*). Due to the build-up of eucalyptus bark and leaf matter, the dense shade created by the eucalyptus canopy, and the chemicals produced by the bark and leaf matter, understory vegetation is mostly absent.

Ornamental. Ornamental landscaping is not a true habitat classification based on Holland (1986), but it occurs in large enough stands to warrant specific mention. Ornamental habitat within the project area is located in isolated patches usually near abandoned structures or along trails. Common ornamental species observed in the study area include olive (*Olea europaea*), Bailey acacia (*Acacia baileyana*), tamarisk (*Tamarix* sp.), myoporum (*Myoporum laetum*), date palm (*Phoenix* sp.), Monterey pines (*Pinus radiata*), Andean pampas grass (*Cortaderia jubata*), hottentot fig, and sea fig. Ornamental habitat comprises 0.9 acre within the project area.

Non-Native Grassland. European grasses represent the non-native annual grassland habitat present within the project area (Holland, 1986). This habitat typically occurs along road and trails and other areas of disturbance. Characteristic species within the project area include wild oats (*Avena* sp.), ripgut grass (*Bromus diandrus*), barley (*Hordeum* sp.), and fescue (*Vulpia* sp.). Filaree (*Erodium botrys*), smooth cat's ear (*Hypochoeris glabra*), fennel, sand spurrey (*Spigularia villosa*), and sow thistle (*Sonchus oleraceus*) are common introduced herbs, while representative native herbs include blue-eyed grass (*Sisyrinchium bellum*), dove weed (*Eremocarpus setigerus*), and tarweed (*Hemizonia fasciculata*). Non-native annual grassland occurs throughout the project area in large stands totaling 119.5 acres.

Ruderal. Though not a true habitat community as defined by Holland (1986), ruderal areas are dominated by highly adaptive and invasive species with few to no native species and are frequently disturbed from human activities. Characteristic ruderal species identified in the project area include mustard, milk thistle (*Silybum marianum*), sweet fennel, cheeseweed (*Mahva parviflora*), sweet clovers (*Melilotus* spp.) telegraph weed (*Heterotheca grandiflora*), and ripgut grass. Within the project area, ruderal habitat is associated with highly disturbed areas and is typically

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located adjacent to and on the infrequently used trails in the project area. It comprises a total of 3.8 acres.

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4.4.1.3.4 Other Unvegetated Resources. Unvegetated habitats within the study area include sand. Other unvegetated resources include developed, disturbed, and paved roads. None of these resources are true habitat types as defined by Holland (1986), but they are described below due to their presence within the project area. Refer to Figure 4.4-1 for the mapped location of these unvegetated resources.

Sand. Sand occurs along the beaches found directly adjacent to the ocean. It is subject to tidal action, and is mostly devoid of vegetation because of frequently moving substrates. Sand totals 11.2 acres in the project area. The sandy beach interfaces with the sandy intertidal, rocky intertidal, and seasonally rocky intertidal marine habitats located immediately adjacent to the project area.

Disturbed. Disturbed areas occur within the non-native grassland portions of the site and total 2.1 acres. These patches are devoid of vegetation and result from erosion due to removal of topsoil, disturbance due to recreational use, and the combination of these two factors.

Paved Roads. Developed land uses within the project area include paved roads traversing the project area within the neighborhood trail north of the Coronado Butterfly Preserve. Dirt and paved roads connect these developed areas. Paved roads total 0.4 acre within the project area.

4.4.1.4 Wildlife Resources

4.4.1.4.1 Wildlife Species Description. The project area supports a variety of wildlife species typical of coastal ecosystems. Moreover, the mosaic distribution of habitat types within the project area provides recurring ecotones, or habitat contact zones, which typically support higher wildlife species diversity. Reptile and amphibian diversity is comparatively limited, typical of disturbed coastal plains (Storrer and Philbrick, 1998). Avian resources are diverse as the eucalyptus and other woodland habitats provide perching, nesting, and roosting areas, and grasslands provide foraging resources for a number of bird species. Urban areas and transportation corridors have created barriers to dispersal for terrestrial wildlife, especially for medium and large carnivores, however, small mammal diversity is relatively high because of the expanse of open grassland and shrubland in the project area.

Reptiles and amphibians are present in all habitats within the project area. The Pacific chorus frog (*Pseudacris regilla*), southern alligator lizard (*Gerrhonotus multicarinatus*), western skink (*Eumeces skiltonianus*), and western fence lizard (*Sceloporus occidentalis*) are commonly distributed throughout the habitats within the project area (Hunt, 1987; Storrer and Philbrick, 1998). Common kingsnakes (*Lampropeltis getulus*) and gopher snakes (*Pituophis catenifer*) occur in grassland habitat. Western terrestrial garter snakes (*Thamnophis elegans*) and western rattlesnakes (*Crotalus viridis*) have been found west of Devereux Slough (Hunt, 1987).

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Common avian species found in upland habitats include black phoebe (*Sayornis nigricans*), western kingbird (*Tyrannus verticalis*), cliff swallow (*Petrochelidon pyrrhonota*), American crow (*Corvus brachyrhynchos*), scrub jay (*Aphelocoma coerulescens*), and northern mockingbird (*Mimus polyglottos*). The patches of freshwater marsh provide habitat for marsh birds such as Bewick's wren (*Thryomanes bewickii*), house wren (*Troglodytes aedon*), warblers, and American goldfinch (*Carduelis tristis*). Riparian habitats and estuarine habitats provide foraging and breeding areas for a diversity of species, such as great blue heron (*Ardea herodias*), snowy egret (*Egretta thula*), and warblers. Although not restricted to this habitat, many raptor species such as turkey vulture (*Cathartes aura*), white-tailed kites (*Elanus leucurus*), red-tailed hawk (*Buteo jamaicensis*), red-shouldered hawk (*B. striatus*), Cooper's hawk (*Accipiter cooperi*), American kestrel (*Falco sparverius*), barn owl (*Tyto alba*), and great horned owl (*Bubo virginianus*) forage within the grassland habitats in the project area (Storrer and Philbrick, 1998).

Because the southern border of the project area abuts the Pacific Ocean, a variety of shorebirds and pelagic birds occur within the vicinity of the project area, including such common species as western gull (*Larus occidentalis*), western grebes (*Aechmophorus occidentalis*), spotted sandpiper (*Actitis macularia*), willet (*Catoptrophorus semipalmatus*), sanderling (*Calidris alba*), marbled godwit (*Limosa fedoa*), and whimbrel (*Numenius phaeopus*). The federally threatened western snowy plover (*Charadrius alexandrinus nivosus*) nests on the beach near the mouth of Devereux Slough.

Common medium-sized and large mammal species known to occur throughout the project area include Virginia opossum (*Didelphis virginianus*), brush rabbit (*Sylvilagus bachmani*), striped skunk (*Mephitis mephitis*), grey fox (*Urocyon cinereoargenteus*), red fox (*Vulpes vulpes*), raccoon (*Procyon lotor*), coyote (*Canis latrans*), as well as feral species, such as domestic dog (*Canis familiaris*), and domestic cat (*Felis cattus*) (Storrer and Philbrick, 1998). Small mammal fauna occurring in all habitats, including the coastal bluffs and grasslands, includes Botta's pocket gopher (*Thomomys bottae*), California ground squirrel (*Spermophilus beecheyi*), western harvest mouse (*Reithrodontomys megalotis*), house mouse (*Mus musculus*), and California vole (*Microtus californicus*) (Ferren, 1980; Hunt, 1987; Storrer and Philbrick, 1998).

4.4.1.4.2 Wildlife Movement. Terms such as habitat corridors, linkages, crossings, and travel routes, have been used to describe physical connections that allow wildlife to move between patches of suitable habitat in both undisturbed landscapes as well as environments fragmented by urban development. To clarify the meaning of these terms and facilitate the discussion of wildlife movement in this analysis, these terms are defined as follows:

Wildlife corridors are typically relatively small, linear habitats that connect two or more habitat patches that would otherwise be fragmented or isolated from one another. Wildlife corridors are usually bounded by urban land areas or other areas unsuitable for a species. The corridor generally contains suitable cover, food, and/or water to support species and facilitate movement while in the corridor. Wildlife movement corridors may be essential to the regional ecology of a species because they provide avenues of genetic exchange and allow animals to access alternative territories as dictated by fluctuating population densities. Larger, landscape-level corridors (often referred to as "habitat or landscape linkages") can provide both transitory and resident habitat

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for a variety of species. Although it is commonly used as a synonym for wildlife corridor, a **habitat linkage** refers to a more substantial, or wider, land connection between two habitat areas. Habitat linkages allow for the periodic exchange of animals between habitat areas, which is essential to maintain adequate gene pools. This linkage is most notable among populations of medium-sized and larger animals. A **travel route** is usually a landscape feature (such as a ridgeline, drainage, canyon, or riparian corridor) within a larger natural habitat area that is used frequently by animals to facilitate movement and provide access to necessary resources (e.g., water, food, cover, den sites). The travel route is generally preferred because it provides the least amount of topographic resistance in moving from one area to another. It provides adequate food, water, or cover for individuals moving between habitat areas and provides a relatively direct link between target habitat areas. **Wildlife crossings** are small, narrow areas that are relatively short in length. They allow wildlife to bypass an obstacle or barrier. Crossings typically are manmade and include culverts, underpasses, drainage pipes, bridges, and tunnels to provide access past roads, highways, pipelines, or other physical obstacles. Wildlife crossings often represent “choke points” along a movement corridor. Regardless of the terminology, development of residential and commercial areas, roads, infrastructure, and trail and access modifications can interfere with the movement of native resident or migratory wildlife species.

Wildlife corridors link areas of suitable habitat that are otherwise separated by areas of non-suitable habitat such as rugged terrain, changes in vegetation, or human disturbance. The fragmentation of open space areas by urbanization creates “islands” of wildlife habitat that are more or less isolated from one another. In the absence of habitat linkages that allow movement between habitat islands, studies have concluded that some wildlife species, especially the larger and more mobile mammals, would not persist over time because fragmentation limits infusion of new individuals necessary to maintain critical population densities and genetic diversity. Habitat corridors mitigate the effects of this fragmentation by: 1) allowing animals to move between remaining habitats, thereby permitting depleted populations to be replenished and promoting genetic exchange; 2) providing escape routes from fire, predators, and human disturbances, thus reducing the risk of catastrophic events (such as fire or disease) that could lead to local extinction; and 3) serving as travel routes for individual animals as they move within their home ranges in search of food, water, mates, and shelter.

Wildlife movement activities usually fall into one of three movement categories: 1) dispersal (e.g., juvenile animals from natal areas or individuals extending range distributions); 2) seasonal migration; and 3) movements related to home range activities (foraging for food or water, defending territories, or searching for mates, breeding areas, or cover).

Within a large, open space area in which there are few or no manmade or naturally occurring physical constraints to wildlife movement, wildlife corridors, as defined above, may not yet exist. Given an open space area that is both large enough to maintain viable populations of species and provide a variety of travel routes (canyons, ridgelines, riverbeds, and others), wildlife would use these “local” routes while searching for food, water, shelter, and mates, and would not need to cross into other large open space areas. Based on their size, location, vegetative composition, and availability of food, some of these movement areas (e.g., large drainages and canyons) are

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used for longer lengths of time and serve as source areas for food, water, and cover, particularly for small- and medium-size animals. This is especially true if the travel route is within larger open space areas. However, once open space areas become constrained and/or fragmented as a result of urban development or construction of physical obstacles, such as roads and highways, the remaining travel routes that connect the larger open space areas can become wildlife corridors as long as they provide adequate space, cover, food, and water, and do not contain obstacles or distractions (e.g., manmade noise, lighting) that would generally hinder wildlife movement.

Dispersal ability among vertebrates is primarily a function of an animal's body size. Birds contradict this trend by virtue of flight. Wildlife dispersal in this discussion largely concerns ground-dwelling wildlife. Because wildlife movement must be considered at a landscape level, parcel analysis has been replaced by a "project level" assessment of potential impacts to wildlife movement corridors. For ground-dwelling vertebrates, habitats in the project area are more or less isolated from large expanses of similar habitats in the foothills of the Santa Ynez Mountains. Devereux Creek and its northern tributaries, such as Phelps Ditch, are the last remaining physical linkages between the open space project area and relatively undisturbed and unfragmented habitats to the north. However, these linkages are tenuous at best and may be open, semi-permeable, or impermeable movement corridors for ground-dwelling vertebrates, depending on the species, its body size, dispersal ability, and tolerance for habitat disturbance. The project area is likely large enough to allow populations of common species, such as the Pacific tree frog, western fence lizard, California towhee, and deer mouse to persist. In general, populations of small vertebrates in the project area, such as amphibians, reptiles, and small mammals, may experience dramatic seasonal and annual fluctuations, but persist in the project area with little or no influx of individuals from extralimital areas. Populations of medium- to large-size carnivores, such as striped skunk (*Mephitis mephitis*), raccoon (*Procyon lotor*), opossum (*Didelphis virginianus*), bobcat (*Lynx rufus*) and coyote (*Canis latrans*) and small and probably could not persist in the project area without dispersal from outside areas. These species have relatively high reproductive rates and can survive in urbanized or otherwise disturbed environments. However, movement of these species between foothill and montane regions and the project area via the narrow and fragmented habitat linkages provided by Devereux Creek and Phelps Ditch may occur only infrequently because there are many intervening barriers to dispersal, such as transportation corridors and associated culverted undercrossings and residential development.

Although bird flyways are not traditionally considered wildlife movement corridors, Devereux Slough, located southeast of the project area, is an important habitat for bird species during migration along the Pacific Flyway. Many bird species use this area as an annual stopover location for several days of rest and feeding prior to continuing migration to their seasonal destination.

4.4.1.5 Jurisdictional Status of Wetland Habitats

The term wetland is used to describe a particular landscape characterized by inundation or saturation with water for a sufficient duration to result in the alteration of physical, chemical,

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and biological elements relative to the surrounding landscape. Wetland areas are characterized by prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands provide habitats that are essential to the survival of many threatened or endangered species as well as other wetland-dependent species. Wetlands also have value to the public for flood retention, storm abatement, aquifer recharge, water quality improvement, and for aesthetic qualities.

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Regulatory agencies with jurisdiction over wetlands include the ACOE, which has the authority to enforce two federal regulations involving wetland preservation; the Clean Water Act (Section 404), which regulates the disposal of dredge and fill materials in waters of the U.S.; and the Rivers and Harbors Act of 1899 (Section 10), which regulates diking, filling, and placement of structures in navigable waterways. State regulatory agencies with jurisdiction over wetlands include the State Water Resources Control Board, which enforces compliance with the Federal Clean Water Act (Section 401) regulating water quality; the California Coastal Commission, which regulates development within the coastal zone as stated in the California Coastal Act (Sections 30001, 30231, 30233(c), and 30240); and the CDFG, which asserts jurisdiction over waters and wetlands with actions that involve alterations to streams or lakes by issuing Streambed Alteration Agreements under Section 1600 of the Fish and Game Code.

4.4.1.5.1 ACOE Definition. As defined by the ACOE at 33 CFR 328.3(a)(3), “waters of the United States” are those that are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide; tributaries and impoundments to such waters; all interstate waters including interstate wetlands; and territorial seas. Based on the 2001 U.S. Supreme Court decision in *Solid Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers*, and guidance from the ACOE and U.S. Environmental Protection Agency (EPA), the federal government no longer asserts jurisdiction over isolated waters and wetlands under Section 404 of the Clean Water Act based on the “migratory bird rule.”

Under ACOE and EPA regulations, wetlands are defined as: “*those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.*” In non-tidal waters, the lateral extent of ACOE jurisdiction is determined by the ordinary high water mark which is defined as the: “*line on the shore established by the fluctuations of water and indicated by physical characteristics such as clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.*” (33 CFR 328[e]). In tidal waters, the ACOE’s jurisdiction under Section 404 of the Clean Water Act extends to the high tide line, which, in the absence of actual data, is defined as “*a line of oil or scum along shore objects, a more or less continuous deposit of fine shells or debris on the foreshore or berm, other physical markings or characteristics, vegetation lines, tidal gages, or other suitable means that delineate the general height reached by a rising tide.*”

4.4.1.5.2 CDFG Definition. The CDFG adopted the U.S. Fish and Wildlife Service (USFWS) definition of wetlands as follows: “*Areas which are periodically or permanently covered by*

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Section 4.4 *shallow water or dominated by hydrophytic vegetation, or in which the soils are predominantly hydric in nature.”*
Biological This wetland definition represents a policy adopted by the Fish and Game Commission pursuant
Resources to Fish and Game Code 703. According to the policy, the CDFG wetland definition is the same as the USFWS wetland definition in Cowardin et al. (1979) that the CDFG considers to be a “one parameter” test. In practice, most wetlands are identified by CDFG by the dominance of hydrophytic vegetation (i.e., when more than 50 percent of the vegetation cover is by obligate, facultative wetland, or facultative plants). In such cases, the CDFG has determined that it is not necessary to determine the presence or absence of wetland hydrology or hydric soils.

4.4.1.5.3 California Coastal Act Definition. The California Coastal Commission, in conjunction with the CDFG, is responsible for defining wetlands subject to regulation under the Coastal Act. Wetlands are defined in Section 30121 of the Coastal Act as follows: “*Wetlands means lands within the coastal zone which may be covered periodically or permanently with shallow water and include saltwater marshes, freshwater marshes, open or closed brackish water marshes, swamps, mudflats, or fens.*” In practice, the California Coastal Commission wetland definition is commonly considered a “one parameter” definition, in which only one of three wetland attributes (hydrophytic vegetation, hydric soils, or wetland hydrology) needs to be present in order for an area to be considered a wetland. This “one parameter” definition also has been adopted by the City of Goleta to characterize wetlands.

4.4.1.6 Comstock Homes Development Site Wetland Delineation Results

Wetlands and “waters of the United States” under jurisdiction of the ACOE and wetlands potentially subject to regulation under the California Coastal Act were delineated in February, March, and April 2000 (SAIC, 2000a). Refer to Figure 4.4-2 for a map of wetlands, wetland buffers, streams, and stream buffers. Wetland buffers include 100 feet for isolated wetlands and 50 feet for stream corridors consistent with City of Goleta policy and are established from the outer edge of the wetland feature.

A description of hydrologic features, hydric soils, and wetland vegetation is provided in the following subsections followed by a summary of the wetland features and wetland buffers.

4.4.1.6.1 Hydrology. The Comstock Homes Development site receives seasonal stormwater flows from commercial and residential development north of Hollister Avenue via two culverts (referred to as Drainages A1 and A2) under Hollister Avenue. Although the two channels formed by these culverts begin over 400 feet apart, they come to a confluence within 1,000 feet south of Hollister Avenue. The channel is referred to as Drainage A downstream of the confluence of A1 and A2. From this confluence, a deep gully is formed and flows southeast, leaving the Comstock Homes Development site and joining a tributary to Devereux Creek within the proposed Ellwood Mesa Open Space Plan area. Drainage A also collects local surface flows from the western section of the Comstock Homes Development site A1 and drains south through the development footprint into Devereux Creek. Surface flow is generally limited to brief periods during and immediately following rain events.

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Figure 4.4-2

Wetlands and Wetland Buffers

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The central portion of the Comstock Homes Development site is drained to the south by a small swale exhibiting only minor signs of hydrologic function at the southern extent of the swale. This gently sloping swale is referred to as Drainage B and discharges into Devereux Creek at the southern edge of the property. Flows in Drainage B are ephemeral and generally contain surface water for brief periods only during rain events.

The western section of the Comstock Homes Development site is drained to the south by a small, highly eroded channel (Drainage C) located beyond the southern boundary of the Comstock Homes Development. After leaving the Comstock Homes Development site, flows from this 25-foot-long drainage join Devereux Creek. Similar to the other drainages on this site, the flows are ephemeral and generally contain surface water for brief periods only during the winter and early spring. Because this small tributary is located off site, wetlands are not further discussed.

4.4.1.6.2 Soils. Soils at this site are predominantly fine, sandy loams. Hydric soils are primarily attributed to those soils found in Devereux Creek and tributaries where soils are saturated for long enough duration to develop dark colors, mottling, or other characteristics of wetland soils. A more detailed discussion of soils at the site is presented in Section 4.2.4.1. Portions of drainages A1, A2, and A exhibit signs of hydric soils.

4.4.1.6.3 Vegetation. Wetland habitat within the Comstock Homes Development is dominated by coastal freshwater marsh with small patches of Southern riparian scrub and Southern riparian forest. These habitats parallel tributaries to Devereux Creek, including Drainages A1, A2, and A. Wetland plants, including common spike rush, alkali heath, and Mediterranean rye, dominate vegetation within the creek. Another area containing wetland vegetation is encompassed within the headwaters of Drainage B. This wetland vegetation patch is predominantly vegetated with the non-native species curly dock, sheep sorrel (*Rumex acetosella*), and loosestrife (*Lythrum hyssopifolium*) (SAIC, 2000a). Alkali heath is also present.

4.4.1.6.4 Summary of Wetlands. Three aquatic habitat types totaling 1.4 acres occur within the proposed Comstock Homes Development site and meet the definition of wetlands subject to regulation under the California Coastal Commission (per the California Coastal Act) and CDFG (per Fish and Game Code). The ACOE (per the Clean Water Act) regulates a subset of these wetlands, totaling 0.8 acres. Table 4.4-2 summarizes habitat acreage meeting the definitions of wetlands per the Coastal Commission, CDFG, and the ACOE.

In summary, Drainages A1, A2, and A exhibit signs of hydrology, hydric soils, and wetland vegetation and are regulated by the California Coastal Commission, CDFG, and ACOE. These drainages are associated with a stream corridor and a 50-foot protective buffer applies, consistent with City policy. The headwaters of Drainage B exhibit signs of wetland vegetation and are regulated by California Coastal Commission and CDFG. This wetland feature is an isolated wetland and a 100-foot protective buffer applies, consistent with City policy.

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**Table 4.4-2. Wetland Acreage within the
Proposed Comstock Homes Development Site**

Comstock Wetland Description	California Department of Fish and Game Wetlands ¹	California Coastal Act Wetlands ²	U.S. Army Corps of Engineers Wetlands ³
Coastal Freshwater Marsh	1.2	1.2	0.6
Southern Riparian Scrub	0.1	0.1	0.1
Southern Riparian Forest	0.1	0.1	0.1
<i>Total Aquatic</i>	<i>1.4</i>	<i>1.4</i>	<i>0.8</i>

¹ CDFG wetlands include Drainages A1, A2, A, and the headwaters of Drainage B.

² California Coastal Act wetlands include Drainages A1, A2, A, and the headwaters of Drainage B.

³ ACOE wetlands include Drainages A1, A2, and A.

4.4.1.7 **Special-Status Species and Habitats**

The special-status species and habitats identified in this EIR address those species that are known to occur in the project area boundary or are known from within a 10-mile radius of the project area and which have a potential to occur in the project area because the area contains suitable habitat. Specific occurrence within the project area is evaluated both on the Comstock Homes proposed development footprint and adjacent Open Space area (Santa Barbara Shores and Ellwood Mesa parcels). Figure 4.4-3 documents the known occurrences of special-status species in the project area. Table 4.4-3 lists special-status plants that are potentially present in the project area. Table 4.4-4 lists the special-status wildlife species. Section 4.4.2 describes the regulatory framework for biological resources and definition of special-status species.

4.4.1.7.1 Special-Status Plants. Several special-status plant species are known to occur in the vicinity of the project area and include southern tarplant (*Hemizonia parryi* ssp. *australis*), Coulter's saltbush (*Atriplex coulteri*), Davidson's saltbush (*Atriplex serenana* var. *davidsonii*), Plummer's baccharis (*Baccharis plummerae* ssp. *plummerae*), Contra Costa goldfields (*Lasthenia conjugens*), Coulter's goldfields (*Lasthenia glabrata*), dunedelion (*Malacothrix incana*), estuary seablite (*Suaeda esteroa*), and woolly seablite (*Suaeda taxifolia*). Table 4.4-3 documents the nearest locations and likelihood of presence within the project area. Of these, only the southern tarplant is known to occur in the project area and this species is described in more detail below.

Southern Tarplant. Southern tarplant is an annual herb that germinates during spring and blooms and sets seed between June and November. It has yellow, daisy-like flowers that occur primarily at the ends of the branches. The California Native Plant Society (CNPS) currently includes this species on List 1B (identified as rare in California) of their inventory of rare and endangered plants in California. Although not observed within the project area, the southern tarplant occurs in several small to large populations less than one mile southeast and east of the project area. The largest population occurs within the boundary of the Venoco Ellwood Marine Terminal. Another small population occurs north of Devereux Creek and the Ocean Meadows

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Table 4.4-3. Special-Status Plants

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Common Name Scientific Name	Listing Status ¹ Fed/State/ CNPS	Known Locations in Vicinity	Preferred Habitat	Blooming Period
Known to Occur Onsite				
Southern tarplant <i>Hemizonia parryi</i> ssp. <i>australis</i>	--/--/IB	Known to occur east of project area on Venoco Lease and COPR, and east on other University-owned lands	Seasonal wetlands and vernal pools	June-Nov
Known to Occur in Vicinity				
Coulter's saltbush <i>Atriplex coulteri</i>	--/--/IB	University campus lagoon; not known to occur in project area	Coastal scrub; alkaline or clay soils	March-Oct
Davidson's saltbush <i>Atriplex serenana</i> var. <i>davidsonii</i>	--/--/IB	University campus lagoon; not known to occur in project area	Coastal scrub	April-Oct
Plummer's baccharis <i>Baccharis plummerae</i> ssp. <i>plummerae</i>	--/--/4	University main campus, COPR lagoon, Gaviota Pass, Refugio Rd.	Coastal scrub; rocky soils	Aug-Oct
Contra Costa goldfields <i>Lasthenia conjugens</i>	--/--/IB	Isla Vista open space and vernal pool reserves; not known to occur in project area	Vernal pools	March-June
Coulter's goldfields <i>Lasthenia glabrata</i> ssp. <i>coulteri</i>	--/--/IB	Goleta Slough; not known to occur in project area	Salt marsh	Feb-June
Dunedelion <i>Malacothrix incana</i>	--/--/4	Goleta Slough; not known to occur in project area	Dune	April-Aug
Estuary Seablite <i>Suaeda esteroa</i>	--/--/4	Goleta Slough; not known to occur in project area	Coastal scrub, salt marsh	July-Oct
Wooly Seablite <i>Suaeda taxifolia</i>	--/--/4	Goleta Slough; not known to occur in project area	Coastal scrub, salt marsh	Jan-Dec

¹ **Key to Codes:**

California Native Plant Society (CNPS)

IB = List IB species: rare, threatened, or endangered in California

4 = List 4 species: plants about which more information is needed to determine their status and plants of limited distribution

Golf Course adjacent to a small vernal pool. Several small populations occur in vernal pool or seasonally ponded water habitat on the western boundary of the Ocean Meadows Golf Course south of Phelps Road and west of Storke Road. Suitable habitat occurs throughout the study area.

4.4.1.7.2 Special-Status Wildlife. Several special-status wildlife species are known to occur in the vicinity of the project area. Table 4.4-4 discusses the nearest locations and likelihood of occurrence within the project area. Each of the species in the table is described in more detail in the species accounts that follow the table.

4.4.1.7.2.1 Special-Status Invertebrates. Three species of fairy shrimp have been recorded historically and/or recently from vernal pools within a five-mile radius of the project area. One species, *Lindieriella occidentalis*, a non-regulated species, apparently was common in vernal pools in the Isla Vista area in the 1960s and 1970s (Eriksen and Belk, 1999; Hubbard, 2004). Prior to creation of the Camino Corto Open Space and Del Sol Vernal Pool Reserve,

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Table 4.4-4. Special-Status Wildlife Species

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Common Name Scientific Name	Listing Status ¹ Fed/State	Occurrence
Invertebrates		
San Diego fairy shrimp <i>Branchinecta sandiegonensis</i>	E/-	One individual of this species was collected from a vernal pool in Isla Vista in the early 1990's but species has not been observed since despite sampling. This observation has been questioned (Eriksen and Belk, 1999) because species is unlikely to occur so far north of known geographic range. No vernal pool habitat exists in project footprint.
Vernal pool fairy shrimp <i>Branchinecta lynchi</i>	T/-	Species found in man-made depressions along the north side of Union Pacific Railroad tracks, about 5 miles west of the project area. Not found to date in Isla Vista vernal pools. No vernal pool habitat exists in project footprint.
Globose dune beetle <i>Coelus globosus</i>	SC/-	This species is known to occur southeast of the project area within the foredune habitat in the Coal Oil Point Reserve (COPR) and southwest of the project area in foredunes between the mouths of Tecolote and Bell Canyon creeks.
Sandy beach tiger beetle <i>Cicindela hirticollis grvida</i>	SC/-	This beetle has been found along the sandy beach in front of the mouth of Devereux Slough, located southeast of the project area. The larvae burrow along wet margin of estuary. Adults feed on flies near the slough mouth.
Monarch butterfly <i>Danaus plexippus</i>	-/SC	Overwintering aggregations occur in eucalyptus woodland southwest, east, and southeast of the development footprint in the Open Space Area. The project footprint impacts the northern edge of the Sandpiper roost site.
Fish		
Tidewater goby <i>Eucylogobius newberryi</i>	E/CSC	Formerly occurred in Devereux Slough (Sandoval, 2003); suitable habitat still exists there; could re-colonize naturally from existing populations in Tecolote and Bell Canyon creeks southwest of project area (Hunt, 2003).
Amphibians		
Red-legged frog <i>Rana aurora draytonii</i>	T/CSC	Nearest known localities are about 0.5 miles northwest of the project area in the main stem of Devereux Creek between Union Pacific Railroad tracks and Highway 101 (Mullen, 2001); breeding populations occur in Tecolote and Bell Canyon creeks south of UPRR tracks about 0.7-1.0 miles west of the project area (Hunt, 2003). No suitable aquatic habitat exists within project footprint.
Reptiles		
Southwestern pond turtle <i>Clemmys marmorata pallida</i>	-/CSC	No suitable aquatic habitat exists within development footprint. Historically known from Devereux Slough and tributaries of Devereux Creek north of Highway 101. No suitable aquatic habitat occurs in Devereux Creek in the Open Space Area except in association with the Ocean Meadows Golf Course and the freshwater pond in the COPR Expansion Area.

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Table 4.4-4. Special-Status Wildlife Species (Continued)

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Common Name Scientific Name	Listing Status ¹ Fed/State	Occurrence
California horned lizard <i>Phrynosoma coronatum frontale</i>	-/CSC	No suitable habitat exists in development footprint. Undocumented sightings from sand dunes around Campus Point and COPR. Low potential for occurrence in dunes west of mouth of Devereux Slough in COPR.
California legless lizard <i>Anniella pulchra pulchra</i>	-/CSC	No suitable habitat exists in development footprint or in Open Space Area, except in dunes west of mouth of Devereux Slough in COPR (Hunt, 1987).
Coast patch-nosed snake <i>Salvadora hexalepis virgulata</i>	-/CSC	Rare along the South Coast, but secretive, so actual occurrence may be more common. Low potential for occurrence in development footprint or Open Space Area because only small, fragmented patches of scrub habitat are present in development footprint and Open Space Area (Hunt, 2003).
Two-striped garter snake <i>Thamnophis hammondi</i>	-/CSC	Observed in several small streams and wetlands in the western Goleta area (UCSB and SBMNH museum records). No suitable habitat exists within the development footprint. Suitable habitat may exist in permanently wetted reaches of Devereux Creek and its tributaries in the Open Space Area and near Devereux Slough (Hunt, 2003).
Birds		
Brown pelican <i>Pelecanus occidentalis clifformis</i>	E/E	Common mid-summer to spring immediately offshore and occasionally on beach south of project area. Breeds on Channel Islands.
Light-footed clapper rail <i>Rallus longirostris levipes</i>	E/E,FP	No suitable habitat in development footprint or in Open Space Area, except in saltmarsh vegetation around Devereux Slough. Formerly occurred in Devereux Slough in the 1940s (Lehman, 1994).
California least tern (nesting) <i>Sterna antillarum browni</i>	E/E,FP	No suitable habitat in development footprint or Open Space Area. Former breeder, now mid-summer and fall visitor at mouth of Devereux Slough and occasionally in interior slough mud flats. Unlikely to nest at these locations (Lehman, 1994).
Western snowy plover <i>Charadrius alexandrinus nivosus</i>	T/CSC	No suitable habitat in development footprint or Open Space Area. Beach around mouth of Devereux Slough and Coal Oil Point supports one of the largest breeding populations of this species (Sandoval, 2003; Lehman, 1994).
Sharp-shinned hawk <i>Accipiter striatus</i>	-/CSC	Uncommon visitor fall through early spring to woodland and scrub habitats throughout the South Coast of Santa Barbara County (Lehman, 1994). Likely to occur in winter in eucalyptus woodlands and forage in open grassland and woodlands in project area.

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Table 4.4-4. Special-Status Wildlife Species (Continued)

Biological
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Common Name Scientific Name	Listing Status ¹ Fed/State	Occurrence
Cooper's hawk <i>Accipiter cooperi</i>	-/CSC	Relatively common resident in woodlands along South Coast of Santa Barbara County (Lehman, 1994). A few pairs breed locally, including near the Venoco Lease southeast of the development footprint (this study), and along a eucalyptus windrow south of the development footprint along the western property line (Storrer, 2003). Likely to forage in grasslands and woodlands in development footprint and surrounding eucalyptus woodlands.
Northern harrier <i>Circus cyaneus</i>	-/CSC	Regular fall, winter, and spring transient to grasslands and open scrub habitats along South Coast of Santa Barbara County (Lehman, 1994). Likely to forage in grasslands in development footprint and Open Space Area.
Osprey <i>Pandion haliaetus</i>	-/CSC	Uncommon fall and winter visitor to nearshore waters (Lehman, 1994). Unlikely to occur in project area away from the ocean.
Golden eagle <i>Aquila chrysaetos</i>	-/CSC	Very rare visitor to coastal regions of Santa Barbara County (Lehman, 1994). Typically nests and forages inland in more expansive grassland and scrub habitats.
White-tailed kite <i>Elanus leucurus</i>	SC/FP	Commonly forages in grasslands in the development footprint and Open Space Area. Known to nest in eucalyptus woodland east and southeast of the development footprint
Prairie falcon <i>Falco mexicanus</i>	-/CSC	Rare visitor to project area; may rarely forage for shorebirds along beaches south of project area from nest and roost sites on south slope of Santa Ynez Mountains.
Peregrine falcon <i>Falco peregrinus anatum</i>	SC/E	Sightings recently increasingly common in fall, winter, spring (Lehman, 1994; Hunt, 2003), but still a rare visitor to project area while foraging for shorebirds along beaches from roost sites on south slope of Santa Ynez Mountains.
Merlin <i>Falco columbarius</i>	-/CSC	Rare visitor in fall and winter through spring (Lehman, 1994). May occasionally forage for shorebirds and other birds on beaches and in Open Space Area, from roost sites on south slope of Santa Ynez Mountains.
Burrowing owl <i>Athene cunicularia</i>	SC/PT	Formerly a common wintering and breeding species along the coast, now a rare fall and early winter visitor (Lehman, 1994). Observed wintering in open grasslands on University lands north of COPR in 2001 (Ball, 2003). Suitable foraging and roosting habitat exists in open grasslands in the development footprint and the Open Space Area.
Short-eared owl <i>Asio flammeus</i>	-/CSC	Rare fall and winter visitor to coastal grassy mesas and wetlands. Wintering population declining and absent in some years. Not recently seen at COPR, but recently present in Goleta Slough and More Mesa (Lehman, 1994). Unlikely to nest in project area, but may forage over grasslands in development footprint and Open Space Area from offsite nests or roosts.

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Table 4.4-4. Special-Status Wildlife Species (Continued)

Section 4.4

Biological
Resources

Common Name Scientific Name	Listing Status ¹ Fed/State	Occurrence
Turkey vulture <i>Cathartes aura</i>	*	Known communal roosts occur in eucalyptus woodlands on Ellwood Mesa, southeast of the development footprint; eucalyptus trees and woodland patches along western edge of development footprint may be used as temporary day roosts; forages throughout the development footprint and Open Space Area.
Loggerhead shrike <i>Lanius ludovicianus</i>	SC/CSC	Regularly observed resident of project area; known to nest in Open Space Area (surveys for this report); unlikely to nest in development footprint because of lack of suitable scrub habitat
California thrasher <i>Toxostoma redivivum</i>	SC/-	Observed in dune scrub and coastal sage scrub southwest and west of Devereux Slough in COPR in late 1980s and early 1990s (Lehman, 1994; Hunt, 2003), but now uncommon. May occasionally forage in coyote bush and other scrub habitats in the Open Space Area, but suitable scrub habitats are relatively small and highly fragmented on-site to be suitable for nesting (Hunt, 2003).
Coast horned lark <i>Eremophila alpestris actia</i>	-/CSC	Occurs commonly in grasslands throughout project area in late fall through late winter (Hunt, 2003).
Yellow warbler <i>Dendroica petechia</i>	-/CSC	Breeds locally in dense willow thickets. Common fall and spring transient and rare winter visitor to South Coast of County (Lehman, 1994). Likely to occur in willow riparian habitat along Devereux Creek during fall and spring migration, but unlikely to breed there because suitable habitat is small and fragmented.
Yellow-breasted chat <i>Icteria virens</i>	-/CSC	Former breeder in dense coastal riparian and willow wetlands along the South Coast, now very rare migrant in area (Lehman, 1994). Unlikely to nest or forage in project area.
Belding's savannah sparrow <i>Passerculus sandwichensis beldingi</i>	-/E	No suitable habitat in project area proper. Known to breed in Devereux Slough salt marsh habitats (Ball, 2003). Habitat requirements are restrictive and species is unlikely to occur away from suitable habitat. Low to no potential for occurring either in development footprint or Open Space Area.
Tricolored blackbird <i>Agelaius tricolor</i>	SC/CSC	Uncommon and local breeder in Santa Barbara County (Lehman, 1994). Unlikely to nest but possibly could forage in small patches of freshwater marsh habitat present in Devereux Creek and Open Space Area project area and in mixed flocks with other Brewer's blackbird and red-winged blackbird in grasslands near such habitats.
Mammals		
Pallid bat <i>Antrozous pallidus</i>	-/CSC	Grasslands and open scrub habitats in the development footprint and Open Space Area provide excellent foraging habitat and possibly roosting habitat for this species. There are suitable offsite roosts that are within flight distance of the project area. Moderate to high potential for occurrence in project area.

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Table 4.4-4. Special-Status Wildlife Species (Continued)

Biological
Resources

Common Name Scientific Name	Listing Status ¹ Fed/State	Occurrence
Western red bat <i>Lasiurus blossevillei</i>	-/CSC	There are several records of this migratory species along the South Coast during fall and winter (Pierson et al., 2002). Suitable roost sites are found beneath the exfoliating bark of blue gum eucalyptus trees surrounding the development footprint and in the Open Space Area; suitable foraging habitat occurs along Devereux Creek, Phelps Ditch, Devereux Slough, and other wetland habitats. Moderate to high potential for occurrence in project area.
Yuma myotis <i>Myotis yumanensis</i>	SC/CSC	No suitable roosting or foraging habitat in development footprint for this project. May forage along Devereux Creek, Devereux Slough, and other wetland habitats in the project area.
Townsend's big-eared bat <i>Corynorhinus townsendii</i>	SC/CSC	Widespread in Santa Barbara County, including along the coast, but roosts have only been found at Vandenberg AFB and in the Santa Ynez Valley within or adjacent to riparian habitats (Pierson et al., 2001). May use the project area as foraging habitat from off-site roosts located along the south slope of the Santa Ynez Mountains. Low potential for occurring in the project area.
Badger <i>Taxidea taxus</i>	-/CSC	No recent observations in the development footprint, but diggings and foraging sign observed in grasslands in the Open Space Area and on University lands to the east in the late 1980s (Hunt, 1987). Current status in project area unknown, but probably low potential for occurring there because of increasing isolation of the site from other open space.

¹Definitions:

Federal

- E = listed as endangered under the federal Endangered Species Act
- T = proposed for federal listing as threatened under the federal Endangered Species Act
- SC = species which information indicates may warrant listing but for which substantial biological information to support a proposed rule is lacking

State

- E = listed as endangered under the California Endangered Species Act
- CSC = species of special concern in California
- PT = Proposed for listing as threatened in California under the California Endangered Species Act
- FP = Fully Protected under the California Endangered Species Act

- * = Locally protected species

these ephemeral water bodies were routinely subjected to vector control efforts. Even with protection and enhancement of the remaining pools in the mid-1980s, County Vector Control continues to add molt-inhibiting hormones to the pools in this area to control mosquitoes. These hormones are non-specific and may negatively affect a broad spectrum of arthropods and crustaceans, including fairy shrimp (Hubbard, 2004). Mosquito control activities and occasional draining of vernal wetlands may be responsible for the lack of fairy shrimp observations in these pools throughout the mid- to late 1990s despite routine sampling for vernal pool invertebrates by researchers from the University (Hubbard, 2004).

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Figure 4.4-3

Known Occurrences of Special-Status Species in the Project Area

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San Diego Fairy Shrimp (*Branchinecta sandiegonensis*). The U.S. Fish and Wildlife Service lists the San Diego fairy shrimp as endangered. It occurs in a limited area of coastal mesas in Orange and San Diego counties (Eriksen and Belk, 1999). This fairy shrimp appears when late fall, winter, and spring rains fill small, shallow, unpredictable, and seasonally astatic vernal pools. Maximum longevity of adults in the field is about 42 days, following a 10-20 day maturation period (Eriksen and Belk, 1999). One individual of this species was reported from a vernal pool in Isla Vista in the early 1990s (Fugate, 1993), but voucher specimens were not collected. The validity of this record, far beyond its known geographic range, has been questioned (Eriksen and Belk, 1999; Hubbard, 2004). Surveys for fairy shrimp were conducted at various intervals in the mid- to late 1990s by researchers from the University, but failed to find fairy shrimp of any species (see introductory note above).

Vernal Pool Fairy Shrimp (*Branchinecta lynchi*). The vernal pool fairy shrimp is listed as threatened by the USFWS. This fairy shrimp is widely distributed in grassland vernal pools throughout the Central Valley of California, with disjunct populations at several locations elsewhere in the State. Habitats seem to be of two different types: clear pools found in sandstone outcrops and pools with muddy bottoms found in swales in grasslands. This species frequents pools that are relatively short-lived: 6-7 weeks in winter and as little as three weeks in spring at warmer temperatures (Eriksen and Belk, 1999). The nearest known location of vernal pool fairy shrimp were recorded in man-made depressions along the north side of the Union Pacific Railroad tracks, approximately 0.5 miles west of Dos Pueblos Canyon in April or May, 2001 (Daniels, 2003). This location is approximately five miles west of the project area. Vernal pools within the project area may be capable of supporting this widely distributed species, based on their physical characteristics and hydroperiod, but it has not been found here to date (see introductory note).

Globose Dune Beetle (*Coelus globosus*). The globose dune beetle is a federal species of concern and is one of four species of dune beetles restricted to coastal sand dunes and beaches along the Pacific Coast. All of the species are strongly fossorial (burrowing). The globose dune beetle is distributed in coastal dunes from British Columbia southward to northwestern Baja California Norte, Mexico (Doyen, 1976). Throughout most of its range, it is narrowly restricted to foredunes immediately bordering the ocean and is able to withstand frequent inundation of its substrates by sea water. Globose dune beetles, along with a closely related congener, *C. ciliatus*, occur in foredune habitats along the base of the bluff south of the Ellwood Mesa Open Space eastward onto the COPR. Both species also occur in foredunes around Bell Canyon and Tecolote creeks about one mile west of the project area (Sandoval, 2003; Hunt, 2003).

Sandy Beach Tiger Beetle (*Cicindela hirticollis grvida*). The sandy beach tiger beetle is a federal species of concern. It is found in open, sandy coastal scrub and beach habitats near estuaries in central and southern California. The larvae burrow along the wet margin of estuaries. The adults are carnivorous, feeding on flies and other insects in the high tide zone. The sandy beach tiger beetle has been found on the beach and dunes around the mouth of Devereux Slough on the COPR (Sandoval, 2003), and at Goleta Beach (Nagano, 1982). Suitable foredune

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Section 4.4 habitat also occurs in foredune habitat at the base of the bluffs south of the Santa Barbara Shores and Ellwood Mesa Open Space sub-areas.

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Monarch Butterfly (*Danaus plexippus*). The monarch butterfly is a state species of concern and is recognized as a California special resource (1988 Statutes, Chapter 540). Overwintering habitat for this butterfly is protected under the County's Local Coastal Plan (LCP) as an Environmentally Sensitive Habitat. Although the monarch butterfly is not threatened with extinction, its wintering sites are highly vulnerable to disturbance.

The Ellwood Mesa/Santa Barbara Shores area contains significant wintering habitat for the monarch butterfly (*Danaus plexippus*). Each fall, monarch butterflies in the western United States migrate to the coast of California from various locations throughout North America. The butterflies arrive at the coast in mid-September in small numbers. As more arrive, they form temporary bivouacs (encampments) and as winter approaches, they form permanent roosts, often called overwintering or wintering colonies. The butterflies will remain until about mid-February, when they generally disperse inland.

A typical wintering site for the monarch butterfly is a grove of trees within a mile of the ocean in creek drainages. Butterflies may roost in a number of different tree species including, but not limited to, pines, oaks, sycamores, cypresses, palms, and willows. However, eucalyptus trees are used as wintering sites 90 percent of the time. Eucalyptus groves create suitable microclimates due to the protection from winds afforded by the large trees, a relatively constant mild temperature, and a nectar source. A well-developed understory typically surrounds the occupied grove, additional insulation from outside temperatures and creating a "thermal blanket."

Large stands of eucalyptus woodland form windrows on the western and eastern perimeter of Ellwood Mesa Open Space Plan area. Other woodlands are located along Devereux Creek and its tributary through the Coronado Butterfly Preserve. Smaller eucalyptus windrows are present elsewhere in the vicinity of the City jurisdiction, such as a windrow on the southern edge of the South Finger of Devereux Slough and the small stands of wind-sculpted trees on the bluff tops. Three species of eucalyptus occurs within the Comstock Homes Development and Ellwood Mesa Open Space Plan area including the more dominant blue gum (*Eucalyptus globules*), the less dominant lemon-scented gum (*E. maculata* var. *citriodora*), and red ironbark (*E. sideroxylon*). Due to the build-up of eucalyptus bark and leaf matter, the dense shade created by the eucalyptus canopy, and the chemicals produced by the bark and leaf matter, understory vegetation is mostly absent.

The eucalyptus groves in the Comstock Homes Development and Ellwood Mesa Open Space Plan area are called the Ellwood Complex. Five monarch butterfly overwintering sites occur in the complex – Sandpiper Aggregation, Ellwood North, Ellwood West, Ellwood Main, and Ocean Meadows Roost (see Figure 4.4-3). Approximately 50 acres of eucalyptus woodland in the Ellwood Complex support overwintering monarchs on a regular basis. A summary of the individual groves is provided below:

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- The Sandpiper Aggregation is located on the western edge of the Santa Barbara Shores property of the Open Space and the southwestern edge of the Comstock Homes Development. This aggregation site borders the Sandpiper Golf Course. Butterflies cluster in eucalyptus woodland formed along Devereux Creek. Section 4.4
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- Ellwood North is located on the Santa Barbara Shores property south of Hollister Avenue. Butterfly clusters are found throughout the grove. Once colder weather arrives, the butterflies concentrate in larger clusters that have been near the same spot for the past ten years.
- Ellwood West is located immediately south of Ellwood North along Devereux Creek. This site usually harbors a significant group of butterflies in the fall.
- The Ellwood Main site is located along Devereux Creek and consistently harbors a large number of overwintering butterflies. It is the most visited overwintering site in Santa Barbara County consisting of hundreds of thousands of individuals in some years. The site receives butterflies that move from less desirable aggregation sites as the season progresses. The combination of dense eucalyptus groves and specific topographic features of Devereux Creek produce the desired conditions for butterfly aggregations. A factor that contributes to the high numbers in the Ellwood Main site is the extensive woodland that surrounds the actual overwintering site (Meade 1999). Trees are mostly healthy with limited signs of beetle infestation. However, the site is subject to ongoing damage from foot traffic which crushes understory vegetation, and causes erosion on the banks of the creek.
- The Ocean Meadows Roost is located in a shallow depression at the edge of the golf course in a eucalyptus windrow on the border of the City and University.

The City of Goleta considers the eucalyptus groves within the Ellwood Complex to be Environmentally Significant Habitat Areas (ESHAs).

4.4.1.7.2.2 **Special-Status Fish.**

Tidewater Goby (*Eucylogobius newberryi*). The tidewater goby is a small estuarine fish, rarely exceeding 2 inches in length that inhabits lagoons and the tidally influenced region of rivers from San Diego County to Del Norte County, California. They are typically found in the upper ends of the terminal lagoons of coastal streams in brackish water, usually in salinities of less than 10 parts per thousand (ppt) (Swift et al., 1989), but have been found as far as two miles upstream from the ocean in coastal stream (Hunt et al., 1991; Hunt, 2003). Habitat for tidewater gobies exists in Devereux Slough; however, they have been extirpated from this location for several years (Sandoval, 2003). The lower reaches and terminal lagoons of Tecolote Creek and Bell Canyon Creek, located approximately 1.5 miles and one mile, respectively, west of the project area, supported high densities of juvenile and adult tidewater gobies in spring and summer 1998 and 1999, and again in 2002 (Hunt, 2003). Although gobies are not currently known from Devereux Slough, this water body potentially could be colonized by individuals from populations in these nearby watercourses. This species does not occur in the project area.

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Section 4.4 4.4.1.7.2.3 **Special-Status Amphibians.**

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California Red-legged Frog (*Rana aurora draytonii*). The California red-legged frog is a federally-threatened species with an historic range including coastal drainages, Central Valley drainages, and Sierra Nevada drainages between the San Francisco Bay area and Baja California. Once the most abundant ranid frog throughout most of lowland California, *draytonii* occurs in significant numbers only in coastal drainages between Point Reyes and Ventura. South of the Santa Clara River (Ventura County) to the Mexican border, it is known from only four locations (Jennings and Hayes, 1994). It is declining regionally due to habitat modification and destruction (flood control projects, dam construction, etc.) and the introduction of exotic species such as bullfrog (*Rana catesbeiana*), sunfish (*Lepomis spp.*), and mosquitofish (*Gambusia affinis*) (Hunt, 2001). This frog occurs in Tecolote and Bell Canyon creeks west of the project area as well as other tributaries within the watersheds of Devereux and Goleta sloughs (Hunt, 2001; 2003).

Red-legged frogs are known to persist in portions of the main stem of Devereux Creek approximately 0.5 miles northwest of the project area between the UPRR tracks and Highway 101 near Bell Canyon (Mullen, 2001). Barriers, such as the Sandpiper Golf Course, the railroad, the highway and other roads, and the distance to the upstream populations limit the potential for presence of the frog in the lower reaches of Devereux Creek. Additionally, riparian habitat is mostly absent downstream of the Sandpiper Golf Course, through Ellwood Mesa to the Ocean Meadows Golf Course, as dense eucalyptus canopy shades the creek, preventing the growth of understory species, further degrading the habitat connection within the creek. The drainages bisecting the Comstock Homes Development site do not contain suitable habitat for this species. Protocol surveys for red-legged frog were not conducted in Devereux Creek or in the Comstock Homes Residences drainages because it was determined that the frog is unlikely to occur due to the isolated conditions of the drainages (e.g., the presence of barriers in the area), poor habitat conditions, absence of ponded water habitat, and lack of historic records.

Phelps Ditch is a previously realigned tributary to Devereux Creek that traverses from north to south, discharging to Devereux Creek in the Ocean Meadows Golf Course. The stream channel upstream of Phelps Road has been historically known as El Encanto Creek and has concrete-lined banks through the adjacent residential development. Downstream of Phelps Road to the connection with Devereux Creek, the banks are unlined and a well-developed riparian canopy is present. Sediment removal is periodically conducted in the downstream portion of Phelps Ditch from Phelps Road through the Ocean Meadows Golf Course. Due to the upstream channelization, periodic creek maintenance activities, lack of connection to known populations, and lack of observations of the species, it is unlikely that red-legged frog occurs in this habitat. Protocol surveys for red-legged frog were not conducted in Phelps Ditch in the project area because it was determined that the frog is unlikely to occur due to the isolated conditions of the drainage (e.g., the presence of barriers in the area), periodic channel maintenance disturbances, and lack of historic records.

A pond on the COPR, located over one mile southeast of the proposed Comstock Homes Residences, hosts saltmarsh and freshwater marsh habitat. Red-legged frogs are not known to

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occur within the pond, however, protocol surveys have not been conducted (Sandoval, 2003). The Ocean Meadows Golf Course, the University's South Parcel drainage gullies, the Ellwood Marine Terminal, and the Venoco access road form a barrier to the north of the pond and from the proposed residences. If frogs were present in the pond, the numerous barriers would likely impede overland migration to the vicinity of the proposed Comstock Homes Residences.

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In summary, red-legged frog are unlikely to occur within the project area and are even more unlikely to occur in the vicinity of the proposed residences which is bounded by development to the north and east, and by the Sandpiper Golf Course to the west.

4.4.1.7.2.4 **Special-Status Reptiles.**

Southwestern Pond Turtle (*Clemmys marmorata pallida*). Southwestern pond turtles are a federal candidate for listing and a state species of concern. They require ponded or slow-water aquatic habitat and occur in both natural and man-made water features. They are capable of long-distance movements within stream corridors (Hunt, 1994). Southwestern pond turtles were found in Devereux Slough in 1979, Goleta Slough in 1976, and University Campus Lagoon in 1978 (University Museum of Systematics and Ecology and Santa Barbara Museum of Natural History specimen records), but whether these records are naturally-occurring individuals or were captured elsewhere and released at these locations is unknown. More recently, they have been sighted in Tecolotito Creek (Hunt, pers. observ., 1999), Atascadero Creek (Hunt, pers. observ., 1996), and an unnamed tributary of Tecolotito Creek near Aero Camino Road and Clyde Adams Road (SBMNH 1980 sight record). Small populations may continue to persist in the middle and upper portions of Ellwood Canyon, Bell Canyon Creek, and Tecolote Creek, west of the project area and north of Highway 101. There is no suitable aquatic habitat for this species in the development footprint. Suitable aquatic habitat is present along portions of Devereux Creek in the Ocean Meadows Golf Course and in the unnamed pond in the COPR, but turtles have not been observed at these locations to date.

California Horned Lizard (*Phrynosoma coronatum*). The horned lizard is a federal and state species of concern. This formerly widespread lizard of central and south-central California is now restricted to the Inner Coast Range, Coast Range, and western Transverse ranges from the San Francisco Bay south through northern Ventura and Los Angeles counties (Jennings and Hayes, 1994). It occurs in habitat ranging from coastal sage scrub, chaparral, grassland, open pine-oak woodland, alluvial fan scrub, and saltbush scrub, with the common denominator that these possess a gravelly-sandy substrate. Records of horned lizards from the South Coast are rare, presumably due to the presence of persistent summer fog (Hunt, 2003). Local records are clustered along the ridgeline of the Santa Ynez Mountains (Hunt, 2003). There are sight records from More Mesa (University Museum of Systematics and Ecology) and a specimen from the dunes east of the mouth of Devereux Slough (University Museum of Systematics and Ecology), but whether these represent natural occurrences or released pets is not known (Hunt, 2003). There are no recent observations of this species from the project area, despite the presence of apparently suitable dune scrub habitat on the COPR and the Ellwood Mesa coastal bluffs.

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Silvery Legless Lizard (*Anniella pulchra pulchra*). The silvery legless lizard is a federal species of concern and a California species of special concern. It occurs mostly in California, ranging from the central and coastal portions of California from the vicinity of Antioch south to northern Baja California. Widespread elimination or alteration of habitat due to urban and agricultural development has reduced and fragmented the range of this species (Jennings and Hayes, 1994). Silvery legless lizards inhabit sand dunes, and sandy loam, or loamy soils beneath shrubs and trees that produce abundant leaf litter. Dune scrub, oak woodland, chaparral, and pine-oak woodlands provide suitable habitat for this species as long as they occur on friable soils with a high sand content that can allow lizards to burrow. Local records are from More Mesa, Hope Ranch, and other sand outcrops to the east (University Museum of Systematics and Ecology; Santa Barbara Museum of Natural History). Waldo Abbott, former Curator of Vertebrate Zoology at the Santa Barbara Museum of Natural History, reported this species as “formerly common, now extirpated” from dunes west of the mouth of Devereux Slough in the 1950s (Hunt, 1987). A series of surveys for this species in the late 1980s in this area did not find them despite the presence of apparently high-quality habitat (Hunt, 1987). However, this species is frequently difficult to find even at known localities (Hunt, 2003). Soils in the project area are too dense to support this species.

Coast Patch-nosed Snake (*Salvadora hexalepis virgulata*). The patch-nosed snake is a state species of concern and is typically found in the desert of the southwestern United States (Stebbins, 2003). It occurs in coastal sage scrub, dune scrub, chaparral, and other low brushy or shrubby vegetation, where it preys upon whiptail lizards (genus *Cnemidophorus*). This species is rarely found near the coast in Santa Barbara County and its distribution there may be limited by the frequency and persistence of summer fog (Hunt, 2003). It may use small mammal burrows and woodrat nests as refugia and/or overwintering sites. Patch-nosed snakes are typically found in scrub and grassland habitats in interior portions of Santa Barbara County. The nearest locality records shown by Jennings and Hayes (1994) are east and north of the project area near the crest of the Santa Ynez Mountains around San Marcos Pass. Suitable scrub/grassland habitat is found throughout the project area, but this species has a low probability of occurring there, probably because of climatic constraints (Hunt, 2003).

Two-striped Garter Snake (*Thamnophis hammondi*). This snake is a state species of concern. It is restricted to southwestern California and the northern two-thirds of Baja California, Mexico. It occurs in close association with riparian, oak-riparian, and other aquatic and semi-aquatic habitats, where it preys upon larval amphibians, small fish, and aquatic invertebrates. It also occurs in scrub, chaparral, and grassland habitats, possibly seasonally, up to thousands of feet from water features (Hunt, 2003). Two-striped garter snakes are known from several drainages along the south slope of the Santa Ynez Mountains (University Museum of Systematics and Ecology and SBMNH records), and it likely occur in freshwater and possibly low-salinity brackish water habitats associated with Goleta Slough and Devereux Slough and its tributaries. There are no records from the project area, but suitable habitat is found in association with riparian habitats along Devereux Creek downstream of the project area in the

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Ocean Meadows Golf Course, Phelps Ditch, and to the east of the project area in the unnamed pond on the COPR.

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4.4.1.7.2.5 **Special-Status Birds.**

California Brown Pelican (*Pelecanus occidentalis californicus*). The California brown pelican was listed as endangered by USFWS in 1970, and by CDFG in 1971. Critical habitat has not been designated to date. This strictly coastal bird frequents open nearshore waters along the coast of California, though many of them leave the area for nesting sites in Mexico and on several of the Channel Islands in late winter and early spring (Lehman, 1994). The species is still recovering from reproductive failures caused by DDT use during the 1950s through 1970s. The California brown pelican is common in the region and is frequently observed diving for fish in the ocean waters adjacent to the project area and roosting to the east in Devereux Slough.

Light-Footed Clapper Rail (*Rallus longirostris levipes*). The light-footed clapper rail is federal and state endangered species. It inhabits coastal salt and freshwater marshes containing cordgrass, cattails or tules, and rushes and forages in higher marsh vegetation, along vegetation and mudflat interface, and along tidal creeks. Its population declines were due to habitat loss of floodplain river areas and tidal estuaries. It is considered a rare vagrant and has not been seen in Devereux Slough since the 1940s, or in Goleta Slough since the 1960s (Lehman, 1994). It is unlikely to occur in the project area.

California Least Tern (*Sterna antillarum ssp. browni*). The California least tern is a medium-sized black and white migratory bird. It is a federally and state-listed endangered species. It breeds along the coast of southern California in abandoned salt ponds, on sandy beaches, and along estuarine shores in San Francisco Bay. This species has been observed foraging in Devereux Slough to the east of the project area, although it does not nest there (Sandoval, 2003).

Western Snowy Plover (*Charadrius alexandrinus nivosus*). The western snowy plover was listed as threatened by USFWS in 1993 and critical habitat was designated in 1999. Snowy plovers have declined as a nesting species throughout California, in part due to human disturbance of sandy beaches typically used for nesting and roosting. Snowy plover nests on sandy beaches and dunes by creating a shallow depression as a nest, using driftwood, rocks, or bushes as cover; nests may also be entirely out in the open. Critical habitat and one of the largest breeding populations in the state occurs along the beaches and dunes adjacent to the West Campus Bluffs, Coal Oil Point, and the COPR. The mouth of Devereux Slough and adjacent beaches to the west are major wintering localities and nesting sites for this species (Sandoval, 2003). This species occurs immediately southeast of the project area and forages along the beaches and intertidal areas at Santa Barbara Shores and Ellwood Mesa.

Cooper's Hawk (*Accipiter cooperi*). Cooper's hawk breeds throughout most of California. Population declines are attributed to the loss of lowland riparian forests. Cooper's hawks are a local resident nesting species and are a widespread but uncommon winter visitor in Santa

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Barbara County (Lehman, 1994). The species continues to breed in well-developed oak woodland and riparian areas in coastal portions of Santa Barbara County (Lehman, 1994). Cooper's hawks are expected to be as an uncommon but regular winter visitor and possible summer breeder in willow and eucalyptus woodlands in the project area. An active Cooper's hawk nest was observed in a eucalyptus tree on the Venoco Lease southeast of the project area in 2002-2003 during field surveys associated with this study and it is known to nest in the eucalyptus windrow south of the development footprint, along the western boundary of the project area (Storrer, 2003).

Northern Harrier (*Circus cyaneus*). The northern harrier is a winter visitor to Santa Barbara County (Lehman, 1994). Loss of grasslands and wetlands has contributed to the decline of northern harriers in California (Remsen, 1978). Harriers have been observed foraging in grassland and open scrub habitats in the project area in the winter (Hunt, 2003; Storrer, 2003). Eucalyptus trees bordering the western, eastern, and northern portions of the Comstock Homes Development, Santa Barbara Shores, and Ellwood Mesa parcels may furnish temporary roosts for this species (Hunt, 2003).

Burrowing Owl (*Athene cunicularia*). The burrowing owl was historically found throughout much of California in open habitats, including annual and perennial grasslands, oak savannah and open oak woodland, deserts, and arid scrublands (CDFG, 1995; Feeney, 1992; Rich, 1984). The burrowing owl nests in burrows typically dug by fossorial mammals such as badgers and ground squirrels (*Spermophilus beecheyi*). Man-made structures, such as cement culverts and debris piles, may also be used. It formerly bred along the South Coast and in western Santa Barbara County, but presence in both of these areas now is restricted to transients that arrive from more interior portions of California in late fall and early winter and depart in early spring (Lehman, 1994). Regional declines have been dramatic that the CDFG has recently been petitioned to list this species as threatened in the State under the California Endangered Species Act, and a decision is pending. Recent sightings of wintering burrowing owls along the South Coast include rocky grassland northeast of Foothill Road and Highway 154 (Hunt, 1999), West Campus in 1998 (Ball, 2003), and other University-owned lands north of the COPR in 2001 (Ball, 2003). The former record included several individuals; the latter records were of single individuals. The grassland and open scrub portions of the project area, including the proposed development footprint provide suitable foraging habitat for this species, however, it is unlikely to nest or roost in the development footprint because of a lack of suitable burrows and chronic human and dog presence.

White-tailed Kite (*Elanus leucurus*). The white-tailed kite has a restricted distribution in the United States, occurring only in California, western Oregon, and along the Texas coast. It is a state "Fully Protected" species. During the early 1900s, the white-tailed kite was almost extirpated from the United States due to illegal shooting, but it has since made a successful recovery. There also is some evidence that local and regional declines are cyclic, mimicking population fluctuations of voles (*Microtus* spp.) and harvest mice (*Reithrodontomys megalotis*), which are preferred prey items (Waian, 1977). Habitat for the white-tailed kite, which includes grasslands and marshes in the Ellwood-Devereux area, is protected by County land use policies

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(County, 2002a). The species occurs as a year-round resident breeder in the project area, which provides foraging, roosting, and nesting habitat for this species. Roost and nest sites are typically communal and are generally occupied from one year to the next, so that “traditional” local territories have been maintained for several years. Up to 110 birds have been observed roosting at a communal roost on More Mesa, approximately 5.5 air miles east of the project area in the 1980s and 1990s (University Museum of Systematics and Ecology records).

One or more kites are regularly observed foraging in grasslands and other open habitats in the project area, including the proposed development footprint and Open Space Area (Storrer, 2003). Kites have been recorded nesting in the eucalyptus and cypress trees bordering the Venoco Lease facility and in the eucalyptus windrow bordering the eastern property boundary of the Ellwood Mesa parcel within the past 13 years (ESA, 1992; Holmgren, 1994; Lehman, 1994) and in eucalyptus trees west of the University’s South Parcel within the past two years (University Museum of Systematics and Ecology records). Observations suggest that open, undeveloped areas south of the Ocean Meadows Golf Course and west of Devereux Slough, including Ellwood Mesa, and the Santa Barbara Shores parcels, are the primary foraging territory for kites nesting in the Devereux Slough area (Holmgren, 1994; Storrer, 2003).

Turkey Vulture (*Cathartes aura*). Communal turkey vulture roost sites are designated “an ecological community of great interest” in the County Comprehensive Plan, Conservation Element, and protection of these sites is recommended (County, 2002a). In Santa Barbara County, turkey vultures use eucalyptus trees as communal roosting habitat. The nearest large communal roost is in Winchester Canyon along the UPRR tracks, approximately 0.7 miles west of the project area, with up to 85 birds observed at one time (Lehman, 1994; Hunt, 2003). Smaller roosts occur within the large eucalyptus groves north of the project area on Ellwood Mesa. Foraging territories typically encompass several miles. Turkey vultures are frequently observed foraging and/or roosting throughout the project area, including the proposed development footprint (Hunt, 2003; Storrer, 2003). Based on the fact that foraging territories typically encompass many square miles, it can be concluded that the project area is included within the foraging territories of individuals using these roosts, although the primary foraging areas for birds that roost in the area are most likely located on undeveloped ranch lands to the west and north because of the larger amounts of open space occurring there.

Other Raptors. Other raptors occur as uncommon to rare transients in the project region and may be expected to rarely visit the project area (Lehman, 1994). These are: golden eagle (resident in County, but very rare visitor to South Coast), sharp-shinned hawk (fall and winter visitor to project area), osprey (nests in interior of County and may occasionally forage for fish in nearshore waters south of project area), peregrine falcon (nests on south slope of Santa Ynez Mountains and may occasionally forage for shorebirds on beaches south of project area, prairie falcon (nests in interior mountains and may occasionally forage for shorebirds and passerines in project area), merlin (nests in interior mountains and is an uncommon fall and winter visitor to South Coast of Santa Barbara County), and short-eared owl (a rare fall and winter transient to South Coast, including Devereux and Goleta sloughs).

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Section 4.4 **Loggerhead Shrike (*Lanius ludovicianus*).** The loggerhead shrike is a state and federal species of concern and is a widespread species that breed throughout much of North America. **Biological Resources** Loggerhead shrikes are likely to use the entire project area as foraging habitat, including the proposed development footprint. Nesting typically occurs in scrub and open woodland habitats. Coyote bush scrub, which is scattered throughout the project area, including the southern portions of the development footprint, may furnish nesting habitat for this species. Nesting occurs from March through mid-July.

California Thrasher (*Toxostoma redivivum*). The California thrasher is a federal species of concern. It occurs in the coastal slope of California, west of the deserts. It is regionally uncommon in Santa Barbara County, but may be locally and seasonally common in certain areas such as Hollister Ranch in mid-summer (Hunt, 2003). California thrashers typically occur in dune scrub, coastal sage scrub, and chaparral, where they forage on the ground for insects, lizards, and small snakes. This species has been observed in dune scrub and coastal sage scrub within and adjacent to the COPR in the late 1980s and early 1990s (Hunt, 2003). However, it probably does not nest here because suitable patches of habitat are relatively small and severely fragmented. It may occasionally forage in patches of coyote bush scrub scattered throughout the project area, including the development footprint, but is unlikely to nest in these habitats (Hunt, 2003).

California Horned Lark (*Eremophila alpestris actia*). The California horned lark, a state species of concern, is a common to abundant resident in a variety of open habitats, usually where trees and large shrubs are absent. They are typically found from grasslands along the coast and deserts near sea level to alpine dwarf-shrub habitat above treeline. They forage on the ground, eating insects, snails, spiders, and grass seeds when abundant. Historic breeding records on the South Coast are not uncommon, but in recent decades coastal breeding has not been observed east of Gaviota and horned larks are now considered to be a transient and winter visitor to the Goleta area (Lehman, 1994). Horned larks likely forage in the grasslands within the project area in late fall and winter, but are unlikely to breed there.

Belding's Savannah Sparrow (*Passerculus sandwichensis ssp. beldingi*). Belding's savannah sparrow is a small, brown, resident songbird. It is a state-listed endangered species. This sparrow occurs in coastal areas of southern California and Baja California where it is a year-round resident of coastal salt marshes and associated mudflats and salt flats. Dense stands of pickleweed in the upper region of salt marshes that flood only during extremely high spring tides are its preferred nesting habitat. Belding's savannah sparrow forages on insects in the marsh and intertidal zone as well as in nearby mudflats and salt flats. Territorial pairs have been observed southeast of the project area in the saltmarsh vegetation around Devereux Slough since spring 1990 and are known to breed in pickleweed vegetation immediately west of Devereux Slough and south of the Venoco access road (Sandoval, 2003).

Tricolored Blackbird (*Agelaius tricolor*). The tricolored blackbird is a state species of special concern. It is a colonial nester in freshwater marshes and along streams. Preferred nesting habitat is dense bulrush and cattails although nesting also occurs in blackberry and nettle

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thickets, willows, mustard, thistles, nettles, and grasses (Beedy et al., 1991). Foraging occurs in wet meadows, rice fields, and rangelands. Devereux Creek supports feeding areas for small flocks of tricolored blackbirds in the summer and fall (Storrer, 2003). It is a rare visitor to the COPR (Sandoval, 2003). Tricolored blackbirds probably use the open grasslands in the project area as foraging habitat during the summer and fall.

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Other Riparian Birds. Yellow warblers and yellow-breasted chats, both riparian obligate species that formerly commonly nested along the South Coast but are now very local, uncommon breeders, may occasionally use willow riparian and freshwater marsh habitats in the project area as fall and spring transients (Lehman, 1994). These species are not expected to nest in the project area because, although suitable riparian and aquatic foraging habitat is present along Phelps Ditch, these habitat patches are relatively small and isolated.

4.4.1.7.2.6 **Special-Status Mammals.**

Pallid Bat (*Antrozous pallidus*). The pallid bat is a state species of concern. Resident and widespread along the South Coast of Santa Barbara County (Hall, 1981), this species forages on the ground at night in grassland and open scrub habitats, where it feeds on scorpions, Jerusalem crickets, beetles, and other large arthropods. Typical roosts include bridges, outbuildings, and other man-made structures as well as crevices in rock outcrops and caves (Pierson et al., 2002). The project area, including the development footprint, contains foraging and possibly temporary roosting habitat (e.g., exfoliating bark and leaf litter on eucalyptus trees). Permanent roosts occur off-site, but within foraging distance of the project area (Hunt, 2003).

Western Red Bat (*Lasiurus blossevillei*). This bat is a state species of concern and is migratory and occurs throughout lowland and lower montane California (Ingles, 1965; Hall, 1981). Individuals migrate to coastal portions of California during the winter. It typically roosts on the underside of large leaves or beneath exfoliating bark. It is an aerial forager, feeding on insects within or around water features, freshwater marsh, and riparian habitats. There are several winter records of this species occurring along the South Coast (Pierson et al., 2002). There is suitable foraging habitat in the general project area associated with Devereux Creek, Phelps Ditch, Devereux Slough, and the unnamed pond in the COPR. Exfoliating bark on eucalyptus trees and leaf litter in eucalyptus woodlands in the project area may furnish temporary, winter roosts for this species (Hunt, 2003).

Yuma Myotis (*Myotis yumanensis*). This small bat is a federal and state species of concern and is resident in Santa Barbara County. Its roosting preferences are similar to those of pallid bats and these two species are frequently found roosting together (Hunt et al., 1991). Yuma myotis are aerial insectivores and have a strong association with open water during foraging (Pierson et al., 2002). Within the project area, Devereux Creek, Phelps Ditch, Devereux Slough, and the ponds in the COPR provide suitable year-round foraging habitat. Exfoliating bark on eucalyptus trees and leaf litter in eucalyptus woodlands in the project area may furnish temporary, winter roosts for this species (Hunt, 2003).

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Section 4.4 **Townsend's big-eared bat (*Corynorhinus townsendii*).** Townsend's big-eared bats are widely distributed in California, with the highest densities occurring in montane and desert regions (Ingles, 1965; Hall, 1981). The closest known roosting records for this species are on Vandenberg Air Force Base and the middle reaches of the Santa Ynez River (Pierson et al., 2002). Foraging habitat typically includes riparian corridors and adjacent woodlands, where this species feeds on moths and other insects. Roost sites are typically associated with crevices in rock outcrops, caves, mines, bridges, and buildings. Although suitable roosting habitat for this species does not occur in the development footprint, it may occasionally forage along the coastal plain of southern Santa Barbara County, including wetland and grassland habitats in the project area, from roost sites in the Santa Ynez Mountains.

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American Badger (*Taxidea taxus*). The American badger, a state species of concern, is distributed throughout the western and midwestern U.S. from Canada to Mexico (Hall, 1981). It occupies a number of diverse habitats, including grasslands, savannas, mountain meadows, coastal sage scrub, and riparian scrub providing that the soils are friable and there is a high density of burrowing rodents. Loss or fragmentation of grasslands and other open habitat is responsible for the regional decline of this species in California (Williams, 1986). Badgers were formerly relatively common in coastal grasslands between Gaviota and Goleta, but declined steeply in the 1980s and 1990s; records include Arroyo Quemado, Cañada de la Huerta, Cañada de la Guillermo (Hunt, 2001; Hunt, 2003). Burrows were recorded within the COPR as late as the mid-1980s (Hunt, 1987), but have not been observed since that time. The American badger is unlikely to occur in the project area because of increasing isolation of the parcels due to urban development.

4.4.1.7.3 Special-Status Habitats. Special-status habitats are considered important because of their high species diversity, high productivity, and limited distribution, declining status or a combination of these qualities. These habitats are recognized as important by local and state agencies and identified by the CDFG in the NDDB and by the County in the GCP. The City of Goleta identifies special-status habitats as EHSAs. Table 4.4-5 lists special-status habitats and general locations of occurrences. Refer to Section 4.4.1.7 for a detailed description of the special-status habitat resources.

ESHAs within the project area are mapped on Figure 4.4-3 and include the dense stands of native grasslands on Ellwood Mesa, all aquatic habitats, all streams, all monarch butterfly roosting sites, and raptor roosting and nesting resources. The fragmented, small patches of native grassland on the Comstock Homes Development site are not considered ESHA based on the fact that they are small and isolated from the larger, contiguous stand of native grassland on Ellwood Mesa.

4.4.1.8 Summary of Biological Resources by Sub-area

Biological resources within the project area are summarized by sub-area or parcel in the following sections and in Table 4.4-5 and are mapped on Figure 4.4-1 and 4.4-3. Refer to Figure 4.4-2 for a map of native grasslands and wetlands in the Comstock Homes Development.

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Table 4.4-5. Special-Status Habitats

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Habitat Type ¹	Location	Biological Resources
Eucalyptus Woodland ²	Comstock Homes Development, Santa Barbara Shores, Ellwood Mesa, Coronado Butterfly Preserve	
Native Grassland	Santa Barbara Shores, Ellwood Mesa	
Southern Coastal Bluff Scrub	Santa Barbara Shores, Ellwood Mesa	
Southern Dune Scrub	Santa Barbara Shores, Ellwood Mesa	
Southern Foredune	Santa Barbara Shores, Ellwood Mesa	
Southern Vernal Pool	Santa Barbara Shores, Ellwood Mesa	
Wetland/Riparian Habitats	Santa Barbara Shores, Ellwood Mesa, Comstock Homes Development Site, Coronado Butterfly Preserve, Phelps Ditch Trail	

¹ Refer to Figure 4.4-1 for the distribution of special-status habitats, Figure 4.4-2 for the distribution of native grasslands and wetlands within the Comstock Homes Development, and Figure 4.4-3 for the distribution of ESHAs.

² Although a non-native habitat type, eucalyptus woodlands are special-status habitats within the project area where they host the monarch butterflies and/or raptor nest/roost sites.

4.4.1.8.1 Comstock Homes Development Site. The 35.7-acre Comstock Homes Development site (18 acres proposed for development and 17.7 acres proposed for common open space) includes native and non-native habitat resources. Non-native annual grassland is the most abundant habitat, totaling 27.1 acres. Soil compaction and accelerated soil erosion are widely evident throughout this parcel, due in part to previous land uses, including oil development, livestock grazing, contaminated soil remediation, and existing land use for outdoor recreation activities. Native grasslands, totaling 0.4 acres, are present as small, scattered patches in the southern and eastern portions of this area. The extent and coverage of native perennial grasses has significantly increased since the removal of horses from the project site. Coyote bush scrub totals 2.8 acres and occurs as large, relatively contiguous patches in the southern and eastern portions of this area. Trails bisect the Comstock Homes Development site and total 1.3 acres of disturbance. Ornamental trees are associated with an unnamed drainage connected to Devereux Creek in the south-central portion of the sites and total 0.1 acre.

The site is bounded on the north and west by eucalyptus windrows containing a total of 450 individual trees. These trees appear to be routinely pruned and there is a large amount of dead wood from cut limbs and trunks lying on the ground in the western windrow. A large area of dense eucalyptus woodland occurs approximately 350 feet east of the eastern edge of the development footprint. North-south-trending tributaries of Devereux Creek bisect the site. These tributaries are vegetated by the following aquatic habitats: 1.2 acres of freshwater marsh, 0.1 acre of riparian scrub, and 0.1 acre of riparian forest. Wetland and riparian resources are considered an ESHA by the City of Goleta.

Potential raptor nesting and roosting habitat, and potential bat roosting habitat occurs in the southern portion of the eucalyptus windrow situated along the western border of the Comstock Homes Development parcel. Additionally, the southern portion of this windrow, located immediately southwest of the southwestern edge of the development footprint is a known

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Section 4.4 monarch butterfly roost site (Calvert, 1991; Meade, 1999; Nagano and Sakai, 1987). This raptor roost/monarch butterfly roost site is considered an ESHA by the City of Goleta. The grasslands potentially support southern tarplant and provide foraging habitat for a variety of wildlife, including some special-status species.

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4.4.1.8.2 Coronado Butterfly Preserve. The Land Trust for Santa Barbara County owns the 9.3-acre Coronado Butterfly Preserve. Together with the neighborhood trail to the north, this linear sub-area totals 21.7 acres and follows Devereux Creek, which runs north to south through the Preserve. The Coronado Butterfly Preserve is located immediately north of the Ellwood Mesa eucalyptus woodlands and coastal bluffs. This open space corridor may provide limited access for some wildlife species between the coastal bluffs at Ellwood Mesa and the foothills of the Santa Ynez Mountains, via the Coronado Butterfly Preserve along Devereux Creek (but see discussion of wildlife movement corridors in Section 4.4.1.4.2). Habitats within the Coronado Butterfly Preserve sub-area include: southern riparian forest, coastal sage scrub, coyote bush scrub, oak woodland, eucalyptus woodland, ornamental, non-native grassland, and ruderal plant communities. The Land Trust has implemented native habitat restoration in portions of this area.

The eucalyptus windrows within the Coronado Butterfly Preserve provide nesting habitat for raptors. Grasslands in this sub-area support southern tarplant and provide foraging habitat for special-status bats and birds.

4.4.1.8.3 Phelps Ditch Trail. The 1.3-acre Phelps Ditch Trail includes Phelps Ditch/El Encanto Creek, a tributary to Devereux Creek, draining from north to south. It terminates in Devereux Creek in the Ocean Meadows Golf Course immediately upstream of Devereux Slough. This drainage has concrete-lined banks with a flat, unlined creek bed upstream of Phelps Road and is unlined downstream to the confluence with Devereux Creek. Freshwater marsh, riparian scrub, and riparian forest habitats are dense within the creek bed. The Urban Creeks Council replanted this tributary in recent years. A trail parallels the west bank of the drainage channel.

Phelps Ditch potentially supports special-status aquatic-associated reptiles, such as the southwestern pond turtle, and the riparian trees provide roosting and nesting habitat for raptors species.

4.4.1.8.4 Ellwood Mesa Open Space. The proposed Ellwood Mesa Open Space area includes the 80.2-acre Santa Barbara Shores and 137.6-acre Ellwood Mesa sub-areas, which are not proposed for residential development. The Ellwood Mesa Open Space includes native and non-native habitat resources. Non-native annual grassland is the most abundant habitat in this area. Soil compaction and accelerated soil erosion are widely evident throughout the southern half of the Santa Barbara Shores parcel and the western half of the Ellwood Mesa parcel, due in part to previous land uses, including oil development, farming, livestock grazing, and contaminated soil remediation, and current land use for outdoor recreation activities.

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In addition to non-native annual grassland, the Ellwood Mesa sub-area contains extensive stands of native grasses, particularly in the eastern portions. Over 40 vernal pools occur in grasslands in these sub-areas. Eucalyptus woodlands bound the site on the north, west, and east. Three small patches of eucalyptus woodland occur along the top of the bluff above the Pacific Ocean. With the exception of the eucalyptus woodland along the coastal bluff, the stands of eucalyptus within the Ellwood Mesa Open Space form a dense canopy with an understory of eucalyptus leaf and bark litter. Devereux Creek and tributaries bisect the Ellwood Mesa Open Space from west to east and are vegetated by the following habitats: freshwater marsh, riparian scrub, and a small patch of riparian forest. Steep, eroded coast bluffs form a barrier between the beach and the mesa. The coastal bluffs are vegetated with a moderately dense growth of coastal bluff scrub, foredune, and dune scrub habitats. Small patches of ornamental plantings are present within the coastal scrub habitat. A stand of riparian forest, which includes stands of giant reed (*Arundo donax*), an invasive non-native species, forms a dense canopy in an eroded drainage at the base of the bluff.

The proposed Ellwood Mesa Open Space Plan area includes the Ellwood North Grove, Ellwood West, and Ellwood Main Grove monarch butterfly overwintering populations and the Sandpiper monarch butterfly roost. The Ocean Meadows autumnal roost occurs along the eucalyptus windrow on the eastern boundary of Ellwood Mesa. Numerous raptor roosts and nests occur within the eucalyptus woodlands. Southern tarplant likely occurs within the vernal pools on the mesa and the grasslands likely support foraging habitat for special-status bats and birds. The coastal bluff habitats near the southeastern boundary of the site support special-status invertebrates, such as the globose dune beetle and sandy tiger beetle. The western snowy plover breeds and winters on beaches immediately southeast of the Ellwood Mesa Open Space and likely forages in the intertidal areas within the open space.

4.4.2 Regulatory Framework

Plant and wildlife species are considered “sensitive” if they are classified as rare, threatened, or endangered; proposed for listing as endangered or threatened; or they are candidate species for listing by federal and/or state resource agencies. In addition, other plants identified as sensitive by the CNPS, and wildlife considered species of special concern, special animals, or fully protected in the State of California are also considered “sensitive.” Certain habitat types are also classified as “sensitive” by the CDFG, as documented in the CDFG NDDB.

For the purposes of this EIR, the term “special-status species” includes species federally listed and proposed for listing as Threatened or Endangered, Candidate, and Species of Concern. Special-status species are plant, wildlife, and fish species that are protected by the following regulations and policies:

- Listed or proposed for listing as threatened or endangered under the federal Endangered Species Act (50 CFR 17.11 [listed animals], 50 CFR 17.12 [listed plants], and various notices in the Federal Register for proposed species)

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- Candidates for possible future listing as threatened or endangered under the federal Endangered Species Act (58 FR 188: 51144-51190, September 30, 1993)
- CDFG list of state threatened or endangered species under the California Endangered Species Act

Other special-status species are taxa that have “special-status” designations other than state or federal status as threatened, endangered, or candidates for listing as endangered or threatened. Special-status designations indicate species rarity, population declines, or threats to populations that may warrant special consideration or protection, which include federal species of concern (former federal C2 candidates).

In late February 1996, the USFWS published an updated list of plant and animal taxa that it regards as candidates for possible addition to the List of Endangered and Threatened Wildlife and Plants under the Endangered Species Act of 1973, as amended (USFWS, 1996). These candidate species are those for which USFWS has on file sufficient information on biological vulnerability and threats to support a proposed rule to list, but issuance of such a proposed rule is precluded. In general, the currently designated “candidate” species correspond with the “Category 1” candidate species previously designated by USFWS. The USFWS no longer includes the former “Category 2” species as candidates, but does acknowledge these previously designated species as “species of concern.” In addition, it has been the policy of the CDFG to consider the previously designated Category 2 candidates as either California Species of Special Concern or as Special Animals.

4.4.2.1 Federal Authorities and Administering Agencies

4.4.2.1.1 Endangered Species Act of 1973. The federal Endangered Species Act and implementing regulations, Title 16 United States Code (USC) §1531 et seq. (16 USC 1531 et seq.), Title 50 Code of Federal Regulations (CFR) §17.1 et seq. (50 CFR §17.1 et seq.), includes provisions for the protection and management of federally listed threatened or endangered plants and animals and their designated critical habitats. Section 7 of the Endangered Species Act requires a permit to take threatened or endangered species during lawful project activities.

The administering agency for the above authority is the USFWS for terrestrial, avian, and most aquatic species.

4.4.2.1.2 National Environmental Policy Act, 42 USC §4321 et seq. This Act requires analysis of the environmental effects of federal actions. The administering agency for the above authority for the University’s proposed project is expected to be the ACOE associated with permitting under Section 404 of the Clean Water Act.

4.4.2.1.3 Fish and Wildlife Coordination Act. Section 7 of Fish and Wildlife Coordination Act, 16 USC 742 et seq., 16 USC 1531 et seq., and 50 CFR 17 requires consultation if any project facilities could jeopardize the continued existence of an endangered species. Applicability depends on federal jurisdiction over some aspect of the project (e.g.,

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dredge or fill activities in “waters of the U.S.”). The administering agency for these authorities is expected to be the ACOE in coordination with the USFWS.

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4.4.2.1.4 Migratory Bird Treaty Act. The Migratory Bird Treaty Act (16 USC §§703-711) includes provisions for protection of migratory birds, including the non-permitted take of migratory birds, under the authority of the USFWS and CDFG.

4.4.2.1.5 Clean Water Act of 1977, Section 404. This section of the Clean Water Act (33 USC 1251 et seq., 33 CFR §§320 and 323) gives the ACOE authority to regulate discharges of dredge or fill material into waters of the U.S., including wetlands.

4.4.2.1.6 Clean Water Act of 1977, Section 401. This section of the Clean Water Act requires a state-issued Water Quality Certification for all projects regulated under Section 404. In California, the RWQCB issues Water Quality Certifications with jurisdiction over the project area. The RWQCB - Central Coast Region, issues Section 401 Water Quality Certifications for applicable project activities in Santa Barbara County.

4.4.2.2 State Authorities and Administering Agencies

4.4.2.2.1 California Endangered Species Act of 1984. The California Endangered Species Act and implementing regulations in the Fish and Game Code, §2050 through §2098, includes provisions for the protection and management of plant and animals species listed as endangered or threatened, or designated as candidates for such listing. The Act includes a consultation requirement “to ensure that any action authorized by a state lead agency is not likely to jeopardize the continued existence of any endangered or threatened species...or result in the destruction or adverse modification of habitat essential to the continued existence of the species” (§2090). Plants of California declared to be endangered, threatened, or rare are listed at 14 CCR §670.2. Animals of California declared to be endangered or threatened are listed at 14 CCR §670.5. 14 CCR §15000 et seq. describes the types and extent of information required to evaluate the effects of a proposed project on biological resources of a project site.

4.4.2.2.2 California Species Preservation Act 1970: California Fish and Game Code §§900 – 903. This law includes provisions for the protection and enhancement of the birds, mammals, fish, amphibians, and reptiles of California, and is administered by the CDFG.

4.4.2.2.3 Fish and Game Code. The Fish and Game Code provides specific protection and listing for several types of biological resources. These include:

- Fully-protected species
- Streams, rivers, sloughs, and channels
- Significant Natural Areas
- Designated Ecological Reserves

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Section 4.4 Fully Protected Species are listed in §3511 (Fully Protected birds), §4700 (Fully Protected mammals), §5050 (Fully Protected reptiles and amphibians), and §5515 (Fully Protected fishes).
Biological Resources The Fish and Game Code of California prohibits the taking of species designated as Fully Protected.

Section 1600 of the Fish and Game Code requires a Streambed Alteration Agreement for any activity that may alter the bed and/or bank of a stream, river, or channel. Typical activities that require a Streambed Alteration Agreement include excavation or fill placed within a channel, vegetation clearing, structures for diversion of water, installation of culverts and bridge supports, cofferdams for construction dewatering, and bank reinforcement.

The Fish and Game Code §1930 designates Significant Natural Areas. These areas include refuges, natural sloughs, riparian areas, and vernal pools and significant wildlife habitats. An inventory of Significant Natural Areas is maintained by the CDFG Natural Heritage Division and is part of the NDDB.

Section 1580 of the Fish and Game Code lists Designated Ecological Reserves. Designated Ecological Reserves are significant wildlife habitats to be preserved in natural condition for the general public to observe and study.

Section 2081(b) and (c) of the California Endangered Species Act allows CDFG to issue an incidental take permit for a state listed threatened and endangered species only if specific criteria are met. These criteria can be found in Title 14 CCR, Sections 783.4(a) and (b). No Section 2081(b) permit may authorize the take of “fully protected” species and “specified birds.” If a project is planned in area where a species or specified bird occurs, an applicant must design the project to avoid all take; the CDFG cannot provide take authorization under this act.

4.4.2.2.4 CEQA, Public Resources Code §2100 et seq. The CEQA Guidelines provide a framework for the analysis of impacts to biological resources. The administering agency for the above authority is the CDFG in cooperation with the CEQA Lead Agency (i.e., City of Goleta).

4.4.2.2.5 Native Plant Protection Act of 1977. The Native Plant Protection Act of 1977 and implementing regulations in Section 1900 et seq. of the Fish and Game Code designates rare and endangered plants and provides specific protection measures for identified populations. It is administered by the CDFG.

4.4.2.2.6 Public Resource Code Sections 25500 & 25527. These code sections prohibit the siting of development in certain areas of critical concern for biological resources, such as ecological preserves, wildlife refuges, estuaries, and unique or irreplaceable wildlife habitats of scientific or educational value. If there is no alternative, strict criteria are applied under the authority of the CDFG.

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4.4.2.2.7 California Coastal Act §30000 et seq. As described in Section 1, the Coastal Act is the only set of policies that apply to development projects with the City of Goleta's Coastal Zone, pending certification of the City of Goleta's Local Coastal Plan. The California Coastal Act Coastal Resources Planning and Management Policies include provisions to maintain, enhance, and restore coastal zone resources (30001, 30230), protect water quality and the biological productivity of coastal waters (30231); avoid and minimize dredging, diking, and filling sediments (30233); protect Environmentally Sensitive Habitats (30240); and mitigation of wetland impacts (30607.1).

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4.4.2.3 Local Authorities and Administering Agencies

In addition to the CDFG and ACOE permitting requirements and processes listed above, other permits or actions that may be required as part of the proposed Comstock Homes Development and the proposed Ellwood Mesa Open Space Plan project are listed below. Regulatory agencies may identify the need for additional permits as the implementation of the project progresses.

4.4.2.3.1 City of Goleta Coastal Zoning Ordinance. As described in Section 1, the County of Santa Barbara's Coastal Zoning Ordinance and other implementing ordinances (including subdivision, and grading ordinances) were adopted by the City but have not been certified by the California Coastal Commission. The Coastal Zoning Ordinance provides guidance for those areas of the City of Goleta within the Coastal Zone. Applicable ordinance sections protect habitats in general (35-97.7), coastal dune habitats (35-97.8), wetlands (35-97.9), native grasslands (35-95.10), vernal pools (35-95.11), butterfly tree habitats (35-95.12), white tailed kite habitats (35-95.14), seabird nesting and roosting habitats (35-95.17), native plant communities (35-95.18), and stream habitats (35-95.19).

4.4.3 Project Impacts and Mitigation

The proposed Comstock Homes Development and Ellwood Mesa Open Space project includes an 18-acre residential development (and 17.7 acre common open space), trail use management along Phelps Ditch, and designation of 240.8 acres of passive open space. The proposed open space area allows for protection of biological resources while allowing use of existing trails, widening of trails, trail closures for revegetation, a parking lot, and a restroom. Potential impacts to biological resources associated with the proposed residential development, widened trails, parking lot, and restroom are evaluated in the following sections. Additionally, the anticipated benefits to the environment resulting from the long-term protection of the proposed Ellwood Mesa Open Space Plan area (as well as the overall Ellwood-Devereux Coast Open Space and Habitat Management Plan area) are also identified. Refer to Section 3.0 for a description and maps of the proposed residential development footprint and proposed trails system, parking lot, restroom, and bench overlooks.

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Section 4.4 **4.4.3.1 Thresholds of Significance**

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The significance of potential project-related impacts on biological resources is evaluated in this EIR based on the following considerations and impact thresholds. An impact that results in long-term loss or degradation of sensitive habitat, or that adversely affects the population of a sensitive species, will generally be considered significant. Sensitive habitats are those that are demonstrably rare, threatened, or endangered, are protected by statute or regulation, or have recognized commercial, recreational, or scientific importance. In this EIR, the significance of project-related impacts to biological resources is based on the County of Santa Barbara Environmental Thresholds and Guidance Manual (County, 2002a). This manual has been adopted by the City as a regulation for conducting CEQA analysis. This manual primarily uses Appendix G of the State CEQA Guidelines for its criteria, which states that a project would have a significant impact on the environment if it exceeds the following thresholds:

- Conflicts with adopted environmental plans and goals of the community where it is located
- Substantially affects a rare or endangered species of animal, plant, or the habitat of the species
- Interferes substantially with the movement of any resident or migratory fish or wildlife species
- Substantially diminishes habitat for fish, wildlife, or plants

Determination of impacts is done on a project-by-project basis. Because of the complexity of biological resource issues, substantial variation can occur between projects. Impact assessment must account for both short-term and long-term impacts (County, 2002a). Impacts are classified as significant or less than significant, depending on the size, type, and timing of the impact and the biological resources involved. Disturbance to habitats and/or species are considered significant if they affect significant biological resources in the following ways:

- Substantially reduces or eliminates species diversity or abundance
- Substantially reduces or eliminates quantity or quality of nesting areas
- Substantially limits reproductive capacity through loss of individuals or habitat
- Substantially fragments, eliminates, or otherwise disrupts foraging areas and/or access to food sources
- Substantially limits or fragments the geographic range or dispersal routes of species
- Substantially interferes with natural processes, such as fire or flooding, upon which the habitat depends

Project-related impacts to biological resources may be considered less than significant where there is little or no importance to a given habitat and where disturbance would not create a

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significant impact. For example, disturbance to cultivated agricultural fields, or small acreages of non-native, ruderal habitat, would be considered less than significant.

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4.4.3.2 **Project Impacts**

4.4.3.2.1 **Comstock Homes Development and Ellwood Mesa Open Space Trail Connections.**

Impacts to Special-Status Plants.

Impact Bio-1: Southern Tarplant. Construction of the Comstock Homes Development and two trail connections into the Ellwood Mesa Open Space at Trail 24 could result in the loss of habitat for the southern tarplant, a CNPS 1B plant. Although this species was not encountered during surveys and its preferred habitat, vernal pools, do not occur within the proposed development footprint, it is found less than one mile east and southeast of the Ellwood Mesa parcel on the Venoco Lease and COPR in grassland/scrub habitats similar to that found in the development footprint. Its annual habit and wind-dependent seed dispersal mechanism means it may not be present at a particular site in all years and it can appear at distant sites via seed carried by the wind from off-site populations. The development footprint is within dispersal range of known populations. Loss of potential habitat for tarplant in the development footprint is considered to be a *significant impact that can be feasibly mitigated to less than significant levels (Class II)*.

Impacts to Wildlife and Wildlife Movement.

Impact Bio-2: Western Snowy Plover. The coastal populations of the western snowy plover has declined as a nesting species throughout California, in part due to human disturbance of sandy beaches typically used for nesting and roosting (Remsen, 1978). In recent years, the nesting and overwintering populations have increased (Sandoval, 2003). These increases are due in part to plover management conducted by the COPR staff. Fencing around nesting habitat, decent programs, and public education are effective management tools (Sandoval 2003). The proposed project would increase the permanent human population on Ellwood Mesa by 200 or more people living within 1.5 miles of snowy plover critical habitat and a major plover breeding colony on the beach at COPR. Increased beach use around Coal Oil Point by humans and their pets, especially dogs, could potentially harm nests and nestlings and is considered a *significant impact that can be feasibly mitigated to less than significant levels (Class II)*.

Impact Bio-3: Monarch Butterflies. Construction of the proposed Comstock Homes Development and Ellwood Mesa Open Space trail connections would place residential development within 350 feet of the “Ellwood North” monarch overwintering site (Site 62 of Meade, 1999), located in the large eucalyptus grove along the eastern property boundary of the Santa Barbara Shores parcel, and within 200 feet of the “Sandpiper Golf Course” autumnal/overwintering site (Site 60 of Meade, 1999). Residential development would remove approximately 190 of the 450 mature eucalyptus trees that occur along the northern and western

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boundaries of the project site to allow for residential unit construction and provide an adequate fire and safety buffer from these windrows. Because the majority of the trees proposed for removal are located along the southwestern parcel boundary, at least 65% (approximately 50 trees) of the existing eucalyptus windrow north of the “Sandpiper Golf Course” monarch autumnal/overwintering site would be eliminated by residential development. The “Ellwood North” grove, “Sandpiper Golf Course” grove, and the portions of the eucalyptus windrow north of the latter site are considered ESHA areas by the City of Goleta. Exposure of the “Ellwood North” and the “Sandpiper Golf Course” groves to increased human activity in and around the groves and air-borne smoke and chemicals from residential emission sources, as well as the altered micro-climate resulting from the loss of most of the southwesterly windrow, could have a significant detrimental affect on these populations. Loss or degradation of monarch autumnal and overwintering habitat is considered a *significant impact that cannot be mitigated to less than significant levels (Class I)*.

Impact Bio-4: Roosting and Foraging Habitat for Raptors, Loggerhead Shrikes, and Bats. Several special-status raptor species routinely use the Comstock Homes Development, Santa Barbara Shores, and Ellwood Mesa parcels, including white-tailed kite (nesting, roosting, and foraging year-round), turkey vulture (roosting and foraging year-round), sharp-shinned hawk (roosting and foraging in winter), Cooper’s hawk (nesting, roosting, and foraging year-round), northern harrier (roosting and foraging in winter), and burrowing owl (roosting and foraging in winter). The area also is used by several common raptors such as red-tailed hawks, red-shouldered hawks, barn owls, and great horned owls. Loggerhead shrikes forage throughout the project area, including the proposed development footprint. Grasslands and woodlands in the area also provide potential foraging habitat for pallid bat, western red bat, Yuma myotis, and Townsend’s big-eared bat.

The Comstock Homes Development project, including the trail connections to the open space, would reduce available roosting and/or foraging habitat for these species in the existing open space area by about 18 acres, or about 15 percent of the total acreage of open space. It also would increase human presence and pet activity, which could disrupt foraging patterns. Dogs, and especially cats, whether domestic or feral, can be a significant source of harassment and/or predation on wildlife and the prey populations on which they depend for food. Nightlighting would increase in undeveloped portions of the open space area near residential development, which may be beneficial for bat foraging behavior, but could negatively affect diurnal avian species. In general, these impacts could adversely affect use of the remaining open space as roosting, nesting, and/or foraging habitat for these species. Impacts associated with loss of foraging habitat and abandonment of roosting and/or nesting sites within or adjacent to the development footprint are considered *significant impacts that cannot be mitigated to less than significant levels (Class I)*.

Impact Bio-5: Nesting Habitat for Raptors and Loggerhead Shrikes. The project would place residences within 150 to 200 feet of the white-tailed kite nest site observed in the eucalyptus windrow along the western border of the project area in 1997 (Storrer and Philbrick, 1998). A pair of Cooper’s hawks nested in eucalyptus trees in the same windrow and fledged

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three young in 1997, and a pair nested at the same location again in 1999 (Storrer, 2003). This location is within 100 feet of the proposed development footprint. Raptors typically show high site fidelity for nest sites. Residential development will remove eucalyptus trees from this windrow and may cause this species to abandon the nest site. White-tailed kites are also known to nest in the eucalyptus grove to the southeast of the proposed residential development (Storrer and Philbrick, 1998). This nest site is approximately 200 feet from the nearest proposed residence. The proximity of the west site to the proposed residence may cause this species to abandon the nest site. Loss of approximately 65% of the western eucalyptus windrow, and construction of residential units in close proximity to known white-tailed kite, Cooper's hawk nest sites, and other raptor roost sites is considered a *significant impact that cannot be mitigated to less than significant levels (Class I)*.

Impact Bio-6: Other Special-Status Wildlife Species. Several other special-status wildlife species do not occur in the Comstock Homes Development area, but are known to occur or have a moderate probability of occurring elsewhere under City of Goleta jurisdiction in the area or on adjacent lands, (e.g., University-owned lands and the COPR). They could be affected directly and indirectly by increased human presence, increased pet activity, and collecting. These species include, but are not limited to: globose dune beetle, sandy beach tiger beetle, southwestern pond turtle, California horned lizard, and silvery legless lizard (see Table 4.4-4). Impacts to these species because of their limited numbers and/or distribution onsite could be *significant, but mitigable (Class II)*.

Impact Bio-7: Non-regulated Wildlife Species. The Comstock Homes Development and Ellwood Mesa Open Space trail connections include the loss of 18 acres of open space habitats. Removal of these areas is considered a less than significant impact on common wildlife species such as raccoons, striped skunks, and western fence lizards. These species are considered common and the removal of 18 acres of native and non-native habitats would not reduce the local populations of common species. Loss of habitat for common wildlife species is considered an *adverse, but less than significant impact (Class III)*.

Impact Bio-8: Wildlife Corridor. The proposed residential development project is located in the northwestern corner of the project area and is bordered on the west, north, and east by existing development and major transportation corridors. The site contains mostly disturbed non-native grassland habitat. Consequently, the Comstock Homes Development site provides at best, limited opportunities for dispersal of ground-dwelling wildlife between the site and points north, west, or east. The proposed project would remove 18 acres of wildlife habitat within the Comstock Homes Development parcel and would affect three small drainages, called Drainages A1 and A2 and Drainage B on Figure 4.4-1. The project proposes to maintain a 50-foot wide habitat buffer between development and Drainages A1 and A2, but would eliminate most of Drainage B. These poorly-developed north/south-trending drainages do not appear to be significant corridors for wildlife movement within the parcel and do not provide habitat connections to points north. Consequently, project-related impacts to wildlife movement between on-site and off-site areas to the north, east, and west are considered *less than significant (Class III)*.

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Section 4.4 **Impacts to Special-Status Habitats.**

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Impact Bio-9: Native Grassland. The Comstock Homes Development site would remove 0.416 acre of native grasses as part of the surface disturbance associated with residential development. The Ellwood Mesa Open Space trail connections to the south of the development are designed to avoid native grasslands. Removal of more than 0.25 acre of native grassland where the native species comprise at least 10 percent of the total relative ground cover, and which are part of a larger ecosystem, is considered significant impact by the City of Goleta and the CDFG. The loss of 0.4 acre of native grassland is considered a *significant impact that cannot be mitigated to less than significant levels (Class I)*.

Impact Bio-10: Wetlands. The City of Goleta's policy is to require a 100-foot buffer around all wetlands and a 50-foot buffer from most drainage features and from wetlands that are contained within defined drainage corridors. Riparian buffers can be adjusted upward or downward as deemed appropriate. Construction of Comstock Homes Development would maintain a 100-foot wetland buffer around the isolated wetland on Drainage B and 50-foot stream corridor buffer around Drainages A1, A2, and A with three exceptions. A proposed Comstock Homes Development access road would encroach into the 50-foot stream corridor buffer on Drainage A1, shading a small patch of freshwater marsh, two detention basins would encroach into the 50-foot stream corridor buffer on Drainage A, and a portion of one residential lot (Lot 75) would be partially located in the 50-foot stream buffer adjacent to the Drainage 2 outlet under Hollister Avenue. The direct loss of wetland vegetation caused by bridge shading, potential changes to the hydrology of the adjacent uplands posed by these improvements, and the effect of vegetating and maintaining the proposed detention basins in such close proximity to these resources would be considered a *significant impact that can be feasibly mitigated (Class II)*.

Impact Bio-11: Exotic Plants. The proposed project would introduce new residences and increased public access into the Open Space Plan area that although are already heavily used for passive recreation, remains in a primarily undeveloped condition. The residential development on the Comstock Homes Development involves installation of extensive landscaping including private lawns and landscaped areas, non-native streetscape, and subdivision landscape improvements. The inclusion of extensive landscaping into an area where none has existed before could result in the exposure of the surrounding natural vegetation to non-native invasive and/or exotic plant species. However, non-native annual grasses and forbs already comprise most of the flora of the proposed development site, and invasive plants can be controlled with a number of mitigation measures. The Ellwood Mesa Open Space trail connections through the Comstock Homes Development connect into an existing trail (Trail 24). Pedestrian access could introduce exotic plant species, however, these access points replace the existing two trail connections and would unlikely create additional impacts. Consequently, the introduction of invasive plants is considered a *significant, but mitigable impact (Class II)*.

Impact Bio-12: Water Pollution. Extensive areas of hardscape, such as roadways, driveways, and sidewalks, generate runoff during storm events that can convey petroleum-product contaminants as well as fertilizers, herbicides, fungicides, pesticides and other landscape

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chemicals to sensitive habitats, such as Devereux Creek and Devereux Slough. The applicant has proposed constructing a series of storm water retention basins that will capture surface runoff from the development footprint before it reaches Devereux Creek. Consequently, impacts to off-site water quality are considered *potentially significant, but mitigable to less than significant levels (Class II)*.

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4.4.3.2.2 Coronado Butterfly Preserve. The 9.3-acre Coronado Butterfly Preserve, combined with the neighborhood trail to the north, totals 21.7 acres. Parcels within the Coronado Butterfly Preserve and neighborhood trail will be rezoned from residential to recreational. As part of this rezone, management actions are described in the proposed Ellwood-Devereux Coast Open Space and Habitat Management Plan that will allow for use of some existing trails while closing and revegetating other existing trails. Impacts associated with the use of the trail system and trail closures are evaluated in Impact Bio-13. Additionally, the potential benefits to the environment resulting from the proposed long-term protection of the open space areas (and the overall Open Space Plan area) are identified in Impact Bio-14 and Bio-15.

Impact Bio-13: General Impacts Associated With Proposed Trail System. The proposed trail system in the Coronado Butterfly Preserve and neighborhood trail area was designed to minimize impacts to sensitive biological resources such as wetlands, monarch overwintering sites, and raptor nests. As such, the existing trails were selected as the proposed managed trail system and trail closures are consistent with the Coronado Butterfly Preserve management plan. A total of 5,959 feet (1.1 miles) of existing trails comprise the proposed trail system in the Coronado Butterfly Preserve and neighborhood trail area. There are no additional biological resource impacts resulting from the proposed trail system, as the proposed trail footprint is located within the existing trail system. As such, impacts are considered a *less than significant impact (Class III)*.

Impact Bio-14: Impacts Associated With Closed Trail System. The proposed trail system in the Coronado Butterfly Preserve includes trail closures as part of restoration and conservation practices. A total of 800 feet of existing trails would be closed and restored. The Coronado Butterfly Preserve management committee will restore the trails as part of their existing management practices. Trail closure and restoration will result in the creation of 0.5 acres of native habitat in an existing disturbed area and is considered a *beneficial impact (Class IV)*.

Impact Bio-15: Rezoning from Residential to Recreation. Parcels within the Coronado Butterfly Preserve and neighborhood trail will be rezoned from residential to recreation. The area would be managed to protect, enhance, and restore biological resources. The Open Space Plan is being prepared concurrently with this EIR. The Open Space Plan will include management practices within the contiguous open space that connects the Coronado Butterfly Preserve and Ellwood Mesa Open Space with the University and County proposed open space for a total of 650 acres. The management actions developed in the Open Space Plan are intended to respect the area's undeveloped and ecological character, disperse recreation across the entire open space area (except in restricted portions of the COPR), and maintain the diverse and informal character of existing recreational activities, while also protecting, restoring, and

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Section 4.4 enhancing important habitats and ecological relationships in the area. Rezoning from residential to recreation protects resources from development and is therefore considered a *beneficial impact (Class IV)*.

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4.4.3.2.3 Phelps Ditch Trail. The 1.3-acre Phelps Ditch Trail site will be managed to preserve public use of the trail paralleling the western bank of Phelps Ditch/El Encanto Creek. Impacts associated with the use of the trail system are evaluated in Impact Bio-16. Additionally, the potential benefits to the environment resulting from the proposed long-term management of the Phelps Ditch trail is evaluated in Impact Bio-17.

Impact Bio-16: General Impacts Associated With Proposed Phelps Ditch Trail. The proposed trail system in the Phelps Ditch Trail site was designed to minimize impacts to sensitive biological resources such as wetlands, thus utilizing the existing trail system paralleling the west bank of Phelps Ditch. A total of 548 feet of existing trails comprise the proposed trail system in the Phelps Ditch Trail site. There are no additional impacts resulting from the proposed trail system, as the proposed trail footprint is located within the existing trail system. As such, impacts are considered a *less than significant impact (Class III)*.

Impact Bio-17: Managing Public Access. The Phelps Ditch Trail is a major connector from the existing residences to the north into the Open Space Plan area. Managing public access along the Phelps Ditch Trail will encourage increased environmental awareness through informational signage at trail heads. Allowable public uses as stated in the Ellwood Mesa Open Space Plan (refer to Section 3.0 of this EIR for a summary of allowable public uses) will encourage proper trail behavior such as staying on the trail, staying out of the riparian corridor, maintaining dogs on leashes, and using dog mitts for waste clean-up. Managed public access will likely improve public environmental awareness and trail use behavior and is considered a *beneficial impact (Class IV)*.

4.4.3.2.4 Ellwood Mesa Open Space. The proposed Ellwood Mesa Open Space Plan area, including the Santa Barbara Shores and Ellwood Mesa sub-areas, allows for use of existing trails, widening of trails, trail closures for revegetation, a parking lot, and a restroom. Impacts associated with the proposed widened trails, parking lot and restroom are evaluated in the following subsections. The Ellwood Mesa properties, which comprise the eastern portion of the proposed Ellwood Mesa Open Space area, are proposed for rezoning from Planned Residential Development to Recreation, a potential benefit to the environment. The potential benefits resulting from the proposed long-term protection of the open space areas (and the overall Open Space Plan area) are identified below.

Impact Bio-18: General Impacts Associated With Proposed Trail System. The proposed trail system in the Ellwood Mesa Open Space Plan area was designed to minimize impacts to sensitive biological resources such as vernal pools, coastal bluff scrub, wetlands, monarch overwintering sites, and raptor nests. A total of 27,059 feet (5.1 miles) of existing trails comprise the proposed trail system in the Ellwood Mesa Open Space. With the exception of widening the Anza Trail (impacts are described separately), there are no additional impacts resulting from the

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proposed trail system as the proposed trail footprint is located within the existing trail system. As such, impacts are considered a *less than significant impact (Class III)*.

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Impact Bio-19: Impacts Associated With Proposed Anza Trail Widening. The Anza Trail is located on the northern portion of Ellwood Mesa and Santa Barbara Shores and avoids impacts to vernal pools located to the south, monarch roosts and raptor nests to the north, and native grasslands scattered throughout the mesa area. In order to accommodate multiple users along the Anza Trail, trail widening is required. A portion of the proposed Anza Trail is currently disturbed from the existing trail system and the remainder of the proposed trail footprint extends into native and non-native habitats. Acreages of habitat disturbance associated with trail widening are provided in Table 4.4-6. In summary, widening of the Anza Trail will result in the removal of 0.65 acre of non-native (annual) grassland, 0.06 acre of coyote bush scrub, and 0.002 acre of Venturan coastal sage scrub for a total of 0.712 acre. This habitat loss will be offset by the restoration of closed trails within the Ellwood Mesa Open Space, as described in a separate impact section. Loss of 0.712 acre of non-native grassland, coyote bush scrub, and coastal sage scrub is considered a *significant impact that can be feasibly mitigated (Class II)*.

Table 4.4-6. Habitat Impacts Associated with Anza Trail Widening and Closed Trail Restoration in Ellwood Mesa Open Space

Habitat Type	Anza Trail Widening Habitat Impacts (acres)	Closed Trail Restoration	Net Change in Trail System (acres)
Disturbed – Existing Trail	-0.217 ¹	-	Not Applicable
Annual Grassland	-0.650	-	-0.650
Southern Coastal Bluff Scrub	-0	+0.5	+0.5
Coyote Bush Scrub	-0.060	-	-0.060
Eucalyptus Woodland	0	-	0
Native Grassland	0	+4.3	+4.3
Southern Riparian Scrub	0	+0.1	+0.1
Venturan Coastal Sage Scrub	-0.002	-	-0.002
Southern Vernal Pool	0	-	0
Total Acres of New Trail Impacts	-0.712¹	+4.9	+4.188

¹ Most of the proposed Anza Trail utilizes an existing trail totaling 0.217 acre; this portion would not involve new habitat disturbance. This acreage is not counted in the “Total Acres of New Trail Impacts.”

Impact Bio-20: Impacts Associated With Closed Trail System. The proposed trail system in the Ellwood Mesa Open Space Plan area includes trail closures as part of restoration and conservation practices. A total of 25,930 feet (4.9 miles) of existing trails would be closed and restored. Table 4.4-6 identifies the acreages of closed trails and related restoration treatments. The net change in trail impacts by habitat type is also identified. Trail closure and restoration will result in the creation of 4.7 acres of native habitat in an existing disturbed area and is considered a *beneficial impact (Class IV)*.

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Section 4.4 **Impact Bio-21: Short-Term Impacts Associated With Proposed Parking Lot and**

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Restroom. The proposed parking lot and restroom are located south of Hollister Avenue between the proposed residential development and the eucalyptus woodlands to the east. Short-term construction-related impacts include noise and dust impacts to the monarch butterfly aggregations and raptor nests in the adjacent eucalyptus woodlands. Short-term construction related impacts are considered a *significant impact that can be feasibly mitigated (Class II)*.

Impact Bio-22: Long-Term Impacts Associated With Proposed Parking Lot and

Restroom. The proposed Open Space Plan area parking lot and restroom at Hollister Avenue would result in increased human activity and increased traffic and vehicular exhaust in an area currently supporting native, open habitats. Direct impacts would include the loss of 0.5 acre of coyote bush scrub, coastal sage scrub, and non-native grassland habitat, which may be used by raptors as foraging habitat, as well as potential disturbance to raptor nest sites and monarch butterfly aggregation sites in the eucalyptus woodland to the east. (These impacts are considered *significant, but mitigable to less than significant levels (Class II)*).

Impact Bio-23: Rezoning from Planned Residential to Recreation. The proposed Ellwood Mesa Open Space Plan area would preserve approximately 238 acres of passive open space as part of the rezone from planned residential to recreation. The area would be managed to protect biological resources where feasible. The Open Space Plan is being prepared concurrently with this EIR. The Open Space Plan will include management practices within the contiguous open space, that connects with the University and County proposed open space for a total of roughly 650 acres. The management actions developed in the Open Space Plan are intended to respect the area's undeveloped character, disperse recreation across the entire open space area (except in restricted portions of the COPR), and maintain the diverse and informal character of existing recreational activities, while also protecting, restoring, and enhancing important habitats and ecological relationships in the area. Although new trails proposed for the Ellwood Mesa Open Space Plan area would remove approximately 0.712 acre of mostly non-native grassland habitat, the removal of approximately 4.9 acres of existing trails that have significantly fragmented habitats and allowed unrestricted human access in the area will more than offset this impact.

Proposed management actions in the Open Space Plan (Ellwood-Devereux Joint Review Panel, 2004) are divided into management programs, by resource area including:

- Monarch Butterfly Population and Habitat
- Riparian Habitat Restoration and Enhancement
- Vernal Pool Restoration and Enhancement
- Native Grassland Restoration and Enhancement
- Coastal Bluff and Dune Scrub Restoration and Enhancement
- Sensitive Plants and Wildlife (including Raptors) Species

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- Ongoing Snowy Plover Management on the COPR

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With implementation of the Ellwood Mesa Open Space Plan, including applicable management programs, there would be a *beneficial impact (Class IV)*.

4.4.3.3 Cumulative Impacts

Impact Bio-24: Cumulative Impact to Wildlife Resources. The geographic context for the analysis of Biological Resources impacts is the Devereux Slough Ecological System, which generally includes the area between Sandpiper Golf Course on the west, Storke Road on the east, the Pacific Ocean on the south, and development on the north. The Goleta Community Plan EIR (Ogden, 1991), as well as other EIRs, such as The Residences at Sandpiper Supplemental EIR (SAIC, 2001), concluded that future development of open space parcels within the Devereux Slough Ecological System, which includes the project area, would be significant. Anticipated cumulative impacts on the slough ecosystem from these projects include significant cumulative:

- Loss of upland movement corridors and degradation of Phelps Ditch channel as a movement corridor due to increased development, human presence, and lighting
- Loss of foraging habitat (grassland) for resident and migratory raptors
- Impacts to special-status biological resources
- Degradation of water quality in Devereux Creek and Devereux Slough from increased pollutant runoff and sedimentation
- Introduction of non-native and/or non-indigenous plants
- Significant beneficial impacts to biological resources from re-designating the Ellwood Mesa, Santa Barbara Shores, and South Parcel from residential development to permanent open space

Project-specific impacts, such as direct impacts to native grasslands, can be feasibly mitigated. However, cumulative losses of open land and degradation of the Devereux Creek and Devereux Slough watershed would be significant, and cannot be feasibly mitigated. Little progress has been made to effectively mitigate loss of native plant communities including native grasslands and coastal sage scrub communities in the foothills and on the coastal plain. In addition, wildlife movement corridors and connectivity between open lands or publicly owned lands are not being preserved.

Implementing the proposed Comstock Homes Development project could increase disturbance to special-status wildlife species, such as western snowy plovers and nesting/foraging raptors, as a result of increased human and pet activity in the Open Space Plan area and adjacent areas. The proposed City's Comstock Homes Development together with the County's Ocean Meadows Residences and the University's Faculty and Family Student Housing would result in cumulative

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effects on biological resources. The proposed project would contribute to a cumulative impact on special-status wildlife species within the Devereux Slough Ecological System on a local and regional scale when considered in combination with existing development, proposed future development within the Devereux Slough Ecological System (e.g., the Ocean Meadows Residences on County of Santa Barbara land and the Faculty and Family Student Housing on University land), and recreational pressures in the overall Goleta and Santa Barbara areas, coastal Santa Barbara County and southern California in general.

Potential direct impacts could include, for example, nest abandonment by adult western snowy plovers and/or direct mortality to plover chicks from increased human and pet presence on the beaches near Coal Oil Point and Devereux Slough; raptor nest abandonment as a result of increased pedestrian traffic in the eucalyptus woodlands at the Ellwood Marine Terminal and Ellwood Mesa area; disruption of raptor foraging patterns caused by increased human presence; erosion of wildlife species diversity through time because of chronic human presence and noise; increased wildlife mortality from feral cat and dog predation; disturbance of wildlife foraging patterns due to feral cat and dog predation on their prey base; and collecting of wildlife by individuals. Indirect impacts to plants and wildlife would include any form of habitat degradation resulting from human-caused disturbances. On a cumulative basis, this impact is considered *potentially significant*. However, the project's contribution would not be cumulatively considerable with implementation of mitigation (refer to mitigation measures Bio-2 and Bio-14) which is designed to reduce potential impacts of the proposed project on special-status species, such as western snowy plover, and habitats.

Non-native plant material and native plant material of unknown geographic origin used in landscaping and restoration could invade native habitats, and native plant material of unknown geographic origin, has the potential to alter the genetic constitution of indigenous populations that have adapted to local climatic, soil, and hydrologic conditions. This is of particular importance to the Devereux Slough ecosystem and the Coal Oil Point Natural Reserve. The Reserve is at the downstream end of Devereux Slough and thus may be a repository for water – and wind-dispersed propagules or seed. Dune scrub species are also susceptible to hybridization from plant material of unknown origin that may be used in mitigation sites. Since the mission of the Reserve is to protect and enhance the ecological functions of the area, invasive species and hybridization has the potential to affect long-term genetic integrity and persistence of endemic dune scrub vegetation communities within the Reserve.

Historically, habitats on the coastal plain, foothill, and montane regions of the Santa Ynez Mountains were contiguous. Development has disrupted that contiguity, fragmenting habitats and creating habitat “islands.” Upland movement corridors include open lands that are physically connected to other open lands, have minimal barriers to movement, or are in close proximity to other open lands such that wildlife can easily move between them. Prior to 1990, the Devereux Slough watershed (east of Storke Road/Glen Annie Road) was substantially less developed compared to today. West and north of the urban boundary line open lands are primarily large ranches or agricultural (orchard) operations. For the most part, these ranches and the extensive wildlife habitat they support are not physically connected to open lands in the

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Goleta Valley. Previously, a dense patchwork of open lands allowed species such as white-tailed kites, red-tailed hawks, turkey vultures, American kestrels, American badgers, coyotes, bobcats, and mountain lions to satisfy foraging, roosting, and/or nesting/denning requirements within contiguous areas. As the patchwork of open lands in the Valley continues to disappear under development, connections between the foothills and the coastal plain, including the project area, become more tenuous, and force wildlife to either expend more energy and expose themselves to increased mortality moving greater distances between non-contiguous habitat patches or to abandon some patches entirely.

Movement corridors for wildlife have two forms in the region: upland open lands and creeks. Open lands south of Highway 101 already are highly fragmented and form a patchwork of parcels of varying size and habitat quality. Aquatic and riparian corridors associated with the coastal drainages in this area can provide more or less continuous habitat connections between the parcels they traverse, but are frequently fragmented by transportation corridors and other development. Loss of these connections may be particularly significant because most drainages in the Devereux Slough watershed trend in a north-south direction, so these movement corridors allow species to move among seasonally abundant water and food sources throughout all elevations of the watershed. Increased development in the past 10 years, especially south of Highway 101, has resulted in habitat loss and fragmentation, increased presence of humans and domestic (or feral) cats and dogs, and night lighting. Incrementally, these impacts have eliminated or degraded upland and/or drainage migration corridors and connectivity to the Devereux Slough Ecological System. Camino Real Marketplace (open lands, raptor foraging), Glen Annie Townhomes (open space, raptor foraging), Glen Annie Golf Course (Devereux Creek), Crown Collection (Devereux Creek), Mountain View Homes (open lands, Phelps Ditch, raptor foraging, and turkey vulture and monarch butterfly roosts), Winchester Commons (open lands, raptor foraging), and Storke Ranch (unnamed eastern tributary of Devereux Creek, open lands, raptor foraging) are notable examples. These developments had significant and unavoidable impacts by eliminating or degrading drainages and undeveloped upland areas that were used by small and medium-sized mammals and birds, foraging raptors, and aquatic biota as movement corridors prior to development.

This project would contribute to increased recreational use of the combined City's Ellwood Mesa Open Space and University's South Parcel (re-designated from residential to open space), Coal Oil Point Natural Reserve, and adjacent beaches, which would increase impacts to biotic resources and sensitive habitats on these sites. These impacts would act synergistically with uses generated by recently constructed developments including Sandpiper Golf Course, Bacara Resort and Spa, Winchester Commons, Storke Ranch, Mountain View Homes, and Glen Annie Townhomes. All of these projects likely contribute significant human presence, automobiles, trash, light, noise, and pet activity to the area, which is expected to create unfavorable conditions for wildlife movement.

The 18 acres of developed land in the Comstock Homes Development contribution to loss of remaining open space in Devereux Slough Ecological System and western Goleta is considered cumulatively *significant and unavoidable* because: there is no feasible mitigation elsewhere in the

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Section 4.4 coastal plain or foothill areas of western Goleta to replace the 18 acres of open space that would be developed under this project.

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The project will result in *significant and unavoidable* cumulative loss of raptor foraging habitat in the watershed. Related to the net losses of upland migration corridors described above, the cumulative loss of native and non-native grasslands in the Goleta Valley in general, and the Devereux Slough watershed in particular, has substantially reduced opportunities for foraging raptors. Compared to coastal scrub and grasslands typically found on the coastal plain, foothill and mountain lands are generally more densely vegetated with orchards, chaparral, or woodlands that may provide suitable nesting opportunities, but do not offer equivalent roosting and foraging values as open, level grasslands and scrub habitats on the coastal plain. Prior to development, coastal plain habitats likely provided raptors with suitable nesting, roosting, and foraging sites in close proximity to each other. Development on the coastal plain has eliminated most raptor nesting and roosting sites and, in general, has increased the distance that must be traveled by raptors moving between these nesting and roosting sites, now located in the foothill and montane areas, and remaining patches of suitable foraging habitat on the coastal plain.

The *significant and unavoidable* cumulative loss of grassland foraging habitat that has occurred as a result of the aforementioned developments on the coastal plain in the Devereux Slough watershed could lead to further reductions in raptor populations in the Goleta area and marginalization of remaining foraging areas in the region.

The proposed project would significantly alter the Comstock Homes Development site relative to their existing conditions, so that the majority of the land in these two areas would be covered with impervious surfaces in the form of structures, roads and pavement, walkways, and similar surfaces. Presently, the Comstock Homes Development site has no impervious surfaces. The majority of rainfall and runoff is absorbed into the soil. Construction of impervious surfaces has the potential to substantially increase pollutant runoff into tributaries to Devereux Creek. Common pollutants that may be entrained in runoff from residential development sites include sediment (during construction and prior to establishment of landscaping and ground cover), pesticides and herbicides used for landscaping purposes, fertilizers, detergents, oil and grease, yard clippings, trash, and animal waste. Presently, Devereux Creek and Devereux Slough receive unfiltered runoff from Winchester Commons, Hollister Avenue, Ocean Meadows Golf Course Storke Road, and other developed sites upstream of the project area. The proximity of the project area to Devereux Creek and Devereux Slough magnifies the cumulative impacts of the project area as a source of water pollution.

The Open Space Plan for this area includes proposals to control human access to and through the City's Ellwood Mesa and the University's South Parcel and improve wildlife habitat quality. This would be accomplished by closing and revegetating a number of existing trails and establishing several permanent trails to direct human traffic away from special-status resources and reduce habitat fragmentation.

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Recent land protection along the South Coast, including the Carpinteria Bluffs, the Douglas Family Preserve, and Haskell's Beach in combination with the protection of the Ellwood-Devereux Coast Open Space and Habitat Management Plan area demonstrates that coastal protection is increasing within the region. It is anticipated that the Ellwood Mesa Open Space and consequently the entire Open Space area would experience increased numbers of visitors due to the proposed development of the Comstock Homes Development and trail improvements in the Ellwood Mesa Open Space. This potential increase in use would be a *cumulatively significant impact*. The proposed project provides numerous mitigation measures to reduce disturbance to special-status species resulting from increased human densities within and adjacent to the Ellwood-Devereux Coast Open Space and Habitat Management Plan area, including Devereux Slough and the COPR. Additionally, the proposed Comstock Homes Development and Ellwood Mesa Open Space project together with the Ocean Meadows Residences and Open Space Plan project, and the University Faculty and Family Student Housing and Open Space Plan project would result in similar mitigation benefits to the biological resources within the Ellwood-Devereux Open Space and Habitat Management Plan area.

In summary, cumulative biological resource impacts are considered a *significant and unavoidable impact (Class I)*.

4.4.3.4 Mitigation Measures

Applicant-proposed mitigation measures to reduce potential project-related impacts to biological resources are provided below. A description of the mitigation measure(s), plan requirements, timing for implementing the measure, and monitoring also is included. The applicant would be responsible for implementing mitigation associated with the residential development project. The City of Goleta would be responsible for implementing mitigation measures associated with construction of the Ellwood Mesa Open Space parking lot and Anza Trail widening. Costs associated with implementation of the applicant-proposed mitigation measures described in Mitigation Bio-1 through Bio-12 within the Ellwood Mesa Open Space would be the responsibility of the applicant, where appropriate, and would follow the methods proposed in the Ellwood-Devereux Coast Open Space and Habitat Management Plan. Similarly, the City of Goleta-proposed mitigation for impacts associated with Anza Trail widening and parking lot construction (Mitigation Bio-13) would be implemented within the Ellwood Mesa Open Space, consistent with the Ellwood-Devereux Coast Open Space and Habitat Management Plan.

Mitigation Bio-1: Southern Tarplant Protection. Although not known to occur in the proposed Comstock Homes Development area, Southern tarplant is known from nearby habitats and could potentially occur onsite. A qualified biologist shall conduct field surveys during the spring flowering season as well as prior to construction to detect the target species and any other special-status plants. If special-status plants are identified during the field survey, and the plants are unavoidable, lost special-status plants shall be replaced in the Open Space Plan area in suitable habitat through a revegetation plan developed by a qualified, local restoration biologist. The applicant shall prepare a detailed grading plan that defines the limits of

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Section 4.4 grading. The detailed grading plan shall be reviewed and approved by City of Goleta staff prior to approval of the tentative tract map for the residential development project.

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Plan Requirements and Timing. The applicant shall prepare a detailed grading plan that defines the limits of grading. The detailed grading plan shall be reviewed and approved by City staff prior to approval of the tentative tract map for the residential development project.

Monitoring. City staff shall ensure that the approved detailed grading plan is included as part of the approved tract map.

Mitigation Bio-2. Western Snowy Plover Protection. To reduce potential impacts associated with increase visitor use of trails near the snowy plover nesting area and Sands Beach, the City of Goleta will provide an annual contribution to the COPR or a similar program to assure that such a program can continue to implement, and augment as necessary, the measures listed below to preserve and protect the snowy plover roost area. Comstock Homes Development will be required to pay a one-time mitigation fee to the City, which would be used to establish an endowment. The income from the endowment would meet the annual funding obligation.

- Increase public education by providing tours, informational packets for the press, informational signs, and opportunities to view shorebirds.
- Work with the Audubon Society to expand the docent program, including maintenance and updating as necessary of the Snowy Plover Document Manual.
- Reduce impacts from domestic animals by requesting the University to intensify the patrolling of the beach and enforcement of the leash law.
- Seasonally adjust the fence around the main plover roost to reduce recreation in the plover roost and post “No Trespassing, Plover Habitat” signage.
- Reduce impacts from official Reserve users by screening reserve applications for potential impacts to plovers and providing information on how to avoid disturbing plovers.
- Re-direct the terminus of the Dune Pond Trail and provide a boardwalk for the trail’s terminus at the beach, per the Open Space Plan.
- Close the Reserve to the public between 10 PM and 5 AM and post signage.
- Encourage the University and County to prohibit and enforce open container prohibitions on the beach.
- Provide clear signage with beach rules to encourage compliance.
- Coordinate beach clean-up efforts to reduce crow visitation and cover trash receptacles to prevent access by crows.

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- Remove any acacia shrubs in the area around the roost to reduce cover for predatory mammals.
- Continue to implement a Snowy Plover Monitoring Plan.
- Continue to monitor compliance with restrictions imposed to protect the plover roost and augment restrictions or other measures as appropriate.

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Plan Requirements and Timing. The amount of funding shall be determined by City of Goleta staff prior to approval of the tract map.

Monitoring. City staff shall verify funding with the final recorded map for the project.

Mitigation Bio-3. Butterflies, Raptors, and General Wildlife Protection. Fencing around the perimeter of the Comstock Homes Development site shall include 6-foot-minimum height fencing. These actions will help to isolate noise and human and pet presence between the development and important monarch aggregation sites, raptor foraging habitat, and wildlife habitats surrounding the development footprint.

Temporary construction fencing with chain link or other material satisfactory to the City of Goleta shall be installed to indicate the grading limits of the development footprint and the parking lot in the field in order to minimize disturbance to adjacent grassland habitats. Fencing shall be shown on project grading and building plans and shall remain in place throughout all grading and construction activities until the perimeter wall or other similar permanent structure is in place.

Plan Requirements and Timing. Temporary fencing of the grading limits shall occur prior to site grading. A permanent perimeter fence should be one of the first construction activities so that noise, dust, exhaust, and other nuisances can be isolated from the surrounding area.

Monitoring. City staff shall ensure that temporary fencing is in place prior to construction and that a permanent perimeter wall is completed following initial site grading.

Mitigation Bio-4. Construction Timing – Raptors. A survey by a City of Goleta-qualified biologist shall be conducted immediately prior to construction in order to establish the current breeding and roosting status of resident raptors throughout the proposed development footprint, as well as the Santa Barbara Shores and Ellwood Mesa parcels. The survey shall include recommendations regarding minimizing impacts during construction, including but not limited to, setbacks, fence protection, restrictions on construction scheduling, etc. The survey shall take into account expected increases and decreases in raptors over the construction period and shall include a map showing known roosting and nesting sites. Consistent with the raptor protection program detailed in the Open Space and Habitat Management Plan, construction shall be timed to avoid the nesting season for raptors. Prior to construction, a qualified biologist will survey for active nests in and around the project area. Construction work within 500 feet of active nest(s) will be suspended until the young have fledged the nest.

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Section 4.4 **Plan Requirements and Timing.** The survey shall be reviewed and approved by City of Goleta prior to Land Use Permit approval.

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Monitoring. The City of Goleta shall review and approve all project grading and construction plans prior to issuing the Grading Permit. The City of Goleta (or its Consultant) shall inspect the site for compliance with survey recommendations.

Mitigation Bio-5. Construction Timing – Monarch Butterflies. All construction or noise-generating work associated with this project, including residential, trail, and parking lot construction, shall be seasonally timed to avoid noise- and human activity-related impacts to overwintering monarch butterflies (October-March). This restriction also applies to removal of the windrow of eucalyptus trees bordering the western edge of the proposed Comstock Homes Development project. However, it is recognized that this may be impractical due to the length of time site preparation and construction activities would be interrupted. If work must occur between October and March, prior to work, a qualified biologist shall survey all eucalyptus trees within 500 feet of the residential development area to determine use by monarchs. If butterfly aggregations are found within 500 feet of the work area, work activities shall be halted until monarchs have left the site.

Plan Requirements and Timing. Mitigation shall be implement prior to construction and during construction.

Monitoring. A qualified biologist shall be used for pre-construction surveys and construction monitoring, as necessary.

Mitigation Bio-6. Monarch Inventory and Monitoring Fund Contribution. The applicant shall contribute funds to a monarch inventory and monitoring program, per the Open Space and Habitat Management Plan. These funds will allow the City of Goleta to properly coordinate management of the existing monarch overwintering sites in the proposed Ellwood Mesa Open Space Plan area by hiring a monarch specialist to coordinate research efforts, evaluate the condition of the population and groves, detect trends in butterfly health, number, and behavior, and support awareness of butterfly migration to ensure that the existing monarchs aggregations are protected.

Plan Requirements and Timing. Funding shall be determined by City of Goleta staff prior to the start of construction.

Monitoring. City staff shall verify funding with the final recorded map for the project.

Mitigation Bio-7. Fire Protection Program for Eucalyptus Groves. A Fire Protection Program for the eucalyptus groves shall be developed by the applicant and submitted with the Final Development Plan and Tract Map. This program shall address measures within the Comstock Homes development to reduce the risk of fire and increase the potential for control should a fire occur. The program shall also prohibit smoking and motor vehicles and

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shall include signage stating these restrictions in the Comstock Homes Development access points to the Open Space area.

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Plan Requirements and Timing. The City of Goleta shall review the Fire Protection Program during processing of the tract map and shall approve the program prior to tract map approval.

Monitoring. The City of Goleta (or its Consultant) shall site inspect for compliance with program.

Mitigation Bio-8. Native Grassland Mitigation. Comstock Homes Development shall revise its site plan to re-route the detention basins adjacent to the west bank of Drainage A1 to avoid the native grassland habitat. The modification will include a slight shift to the north and will avoid all native grassland habitat resources. Native grasslands within the development footprint shall be surveyed and the amount of habitat to be removed shall be determined by measuring the surface area of current native grassland areas for off-site mitigation at a ratio of 3:1. The mitigation plan shall include provisions for restoration of any native grassland removed due to project construction. Restoration shall occur within the confines of the Santa Barbara Shores and Ellwood Mesa properties in the Open Space Plan area at the following mitigation ratio: 3:1. Comstock Homes Development shall have a one-time funding obligation under Mitigation Bio-8. The mitigation plan shall include, but not be limited to, the following:

- Establishment of performance criteria and a monitoring period of at least five (5) years.
- Identification of suitable locations for restoration, in the closed trail footprints on Ellwood Mesa and Santa Barbara Shores or in contiguous areas such as the bluff top open space or within or near existing vernal pool/native grassland complexes.
- The seed stock and or plants that are removed from development areas shall be used for revegetation. Criteria and timing for removal and replanting shall be identified. If using material from the development envelope site is not feasible, native seed for restoration shall be collected from the remainder of the Santa Barbara Shores property or the Ellwood Mesa property.
- Development of short-term and long-term maintenance and management criteria.
- Buffers and/or fencing shall be included based on proximity to potential areas of disturbance.
- Establishment of two types of performance securities for the restoration effort: one type shall be equal to the value of installation and/or replacement of all required items; the other shall be equal to the value of maintenance of the items for the require maintenance period (at least five (5) years). The amounts shall be agreed to by the City of Goleta. The installation security shall be released upon satisfactory installation of planted and/or seeded stock. If plants and irrigation (and/or other required infrastructure, such as fencing) have been established and maintained, the City of Goleta may release the maintenance security after

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three (3) years. If the applicant fails to either install or maintain according to plans, the City of Goleta may collect security and complete work on the property.

Plan Requirements and Timing. The above components shall be reviewed and approved by City staff prior to approval of the tract map. The City of Goleta (or its Consultant) shall site inspect for adequacy of implementation.

Monitoring. City staff shall field check for compliance. City staff (or its Consultant) shall site inspect prior to sign-off release of both installation and maintenance securities.

Mitigation Bio-9. Riparian Avoidance and Buffer Mitigation Plan. The applicant shall revise the Comstock Homes Development site plan to re-route the access road bridge crossing over Drainage A1 to avoid shading the wetland habitat. The modification will include a slight shift to the south and will avoid all wetland habitat resources. The applicant shall prepare a Riparian Buffer Mitigation Plan to address project-generated impacts on adjacent riparian resources resulting from construction activities within 50 feet of riparian areas in the Comstock Homes Development. Riparian buffer mitigation includes a restoration program to restore and revegetate all riparian buffer areas disturbed by construction of project improvements including detention basins/drainage swales, roads, and infrastructure. Where buffer areas are permanently lost to development, the plan shall include provisions for the enhancement (restoration and/or revegetation) of off-site wetland and vernal pool buffers within the adjacent Open Space Plan area (Ellwood Mesa) on a 3:1 basis. The mitigation plan shall include, but not be limited to, the following:

- Establishment of performance criteria and a monitoring period of at least five (5) years.
- Identification of suitable locations for buffer restoration/enhancement, preferably in contiguous areas such as the bluff top open space, within or near existing vernal pool/native grassland complexes or wetland areas downstream of the project site.
- A detailed study of the soils and hydrologic characteristics shall be conducted to determine the likelihood of success prior to initiating restoration.
- A construction survey using final engineering plans shall be conducted during the appropriate season to detect sensitive plant species in the vicinity of disturbance sites for the waterline and remediation sites outside the approved development envelope. The survey results shall be provided to the City and provisions of the mitigation plan shall be implemented as appropriate following the surveys.
- The seed stock used for riparian buffer restoration/enhancement shall be collected either from the Comstock Homes Development parcel, the Santa Barbara Shores property, or the Ellwood Mesa property. If seed quantities are not available, seed collection shall be conducted within the local region limited to the South Coast area.
- The mitigation plan shall utilize sensitive plant species such as meadow barley, alkali barley, southern tarplant, and hedge nettle for buffer revegetation/restoration/enhancement.

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- The plan shall include provisions for short-term and long-term maintenance with management criteria to be implemented by a qualified biologist.
- Establishment of two types of performance securities for the restoration effort: one type shall be equal to the value of installation and/or replacement of all required items; the other shall be equal to the value of maintenance of the items for the required maintenance period (at least five (5) years). The amounts shall be agreed to by the City of Goleta. The installation security shall be released upon satisfactory installation of planted and/or seeded stock. If plants and irrigation (and/or other required infrastructure, such as fencing) have been established and maintained, the City of Goleta may release the maintenance security after three (3) years. If the applicant fails to either install or maintain according to plans, the City of Goleta may collect security and complete work on the property.

Plan Requirements and Timing. The above components, including a vernal pool restoration and revegetation study, shall be incorporated in the required Riparian Buffer Mitigation Plan and approved by City staff prior to approval of the tract map. The approved plan shall be incorporated in the approved development plans and accompany any plans submitted for approval of the project.

Monitoring. City staff (or its Consultant) shall field check for compliance with the Riparian Buffer Mitigation Plan during project construction, and shall site inspect prior to sign-off release of both installation and maintenance securities.

Mitigation Bio-10. Landscape Plan. In order to protect the genetic integrity of the native plant populations on the undeveloped portions of the subject property, the project Landscape Plan shall be prepared to prohibit the use of non-locally collected native plants and seed materials for any native species used within or adjacent to open space areas (including plantings proposed for habitat/buffer restoration, native grassland mitigation, and landscape plantings outside perimeter fencing). Whenever native species are specified for plantings or seeding, all seed or plant material shall come from sources within the Devereux Creek watershed. In some cases, such as for native grassland and wetland buffer species, seed shall be collected from the proposed development area, Santa Barbara Shores, or the Ellwood Mesa Open Space.

The Landscape Plan for the proposed project shall prohibit buried irrigation infrastructure outside of the approved development envelope. All temporary irrigation components (including pipe) shall be placed above ground in open space areas. The potential for damage to the pipe by vandalism or exposure is considered insufficient to offset the environmental damage caused by trenching to install pipes and structures and subsequent digging to remove pipes and structures. Pipes shall be inspected frequently for leaks. All leaks shall be repaired promptly to avoid erosion, weed establishment, or other environmental damage.

Plan Requirements and Timing. The Landscape Plan, including irrigation components, shall be prepared by a qualified, local restoration biologist and reviewed and approved by City staff prior to approval of the proposed tract map.

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Section 4.4 **Monitoring.** City staff shall verify compliance with the plan in the field before construction activities begin and during construction activities.

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Mitigation Bio-I I. Biological Resource Protection. Comstock Homes shall prepare and install biological resources protection signage, consistent with the Open Space Plan details, at open space access points within the proposed residential development at the two trailheads. The City would be responsible for signs at the tops of the beach access trails, and at appropriate locations along the beach, advising that dogs must be on leashes, that leash laws are strictly enforced, of the penalty for allowing dogs to be off leashes, and the reasons why dogs must be on leashes (stressing protection of snowy plovers and other shorebirds and raptor foraging and nesting information). The leash requirements for dogs shall also be incorporated into the CCRs given to homeowners in the residential development. The CCRs shall also inform all homeowners of the potential impact stray domestic and feral cats can have on wildlife populations and the need to minimize the potential for cats to roam the Open Space Area. Nightlighting within and around the perimeter of the proposed residential development shall be of the minimum wattage necessary for safety and shall be shielded and directed downward to minimize light “pollution” to adjacent open space. The CCRs shall include restrictions on the type and intensity of lights allowed in back yards (e.g., lights must be shielded and down-directed).

Plan Requirements and Timing. A Biological Resource Protection Sign Plan, including proposed wording and location of signs, shall be prepared by Comstock Homes and reviewed and approved by City staff prior to Land Use Permit approval. Comstock Homes shall post a bond sufficient to cover the costs of creating and placing the specified signage, and their upkeep. The required sign plan shall accompany all plans submitted for approval for project construction. A copy of the wording to be incorporated into the CCRs shall be submitted to the City of Goleta for approval prior to Land Use Permit approval. The design and location of street lamps shall be submitted to the City of Goleta prior to Land Use Permit approval and included on all plans submitted for approval for project construction.

Monitoring. The City of Goleta shall review the final copy of the CCRs to ensure that appropriate language regarding pets, feral cats, and nightlighting issues are included in the document.

Mitigation Bio-12: Eucalyptus Woodland Replacement Plan. The Open Space and Habitat Management Plan identifies measures for protection of monarch butterflies and associated habitat, including eucalyptus trees. Approximately 50 eucalyptus trees occur within the Sandpiper Golf Course Aggregation in the Comstock Homes Development footprint. This ESHA also supports raptor roosting habitat. The eucalyptus woodland ESHA lost as a result of the Comstock Homes Development is unmitigable as loss of an ESHA is inconsistent with the California Coastal Act. Although inconsistent, mitigation, such as eucalyptus woodland replacement in common open spaces, could offset some losses.

Plan Requirements and Timing. There are no plan requirements at this time.

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Monitoring. There is no monitoring proposed at this time.

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Mitigation Bio-13: Water Quality Protection. Improvements to the hydrology and water quality of Drainages A1, A2, and B shall be accomplished by grading and designing the development sites to direct storm water runoff into retention basins rather than to storm drain lines directly linked to Devereux Creek. The applicant has proposed construction of a series of retention basins to capture and filter storm water runoff from the development footprint. These basins shall be constructed during initial site grading and shall be functional during the construction phase. The floor of the storm water retention basins shall be vegetated with native, locally occurring wetland plants that will filter and process runoff and pollutants. Sediment trapped by the basins will require periodic removal. Consequently, the plant palette shall include native species that can readily re-establish themselves from seed or rhizomes following sediment removal activities. The floor of the basin shall allow percolation of runoff into the ground. The sides of the basin shall be vegetated with native, locally occurring grasses, forbs, and shrubs.

The storm water retention basins shall not be used as clean-out areas for concrete, plaster, stucco, oil, or other construction products during construction. Washout areas for construction products shall be located away from the perimeter of the construction sites and shall be lined with plastic to contain polluted water such that it can be evaporated and the residue removed from the site. The clean-out areas shall be regularly maintained to ensure functionality and shall be located at least 50 feet away from any storm drain, waterbody, or sensitive biological resource. The location of clean-out areas shall be clearly noted at the construction site with signs.

Best Management Practices (BMPs) shall be incorporated into the grading/drainage plan and shall be maintained for the duration of construction. Installation and maintenance of appropriate sediment control measures shall be photo-documented and submitted by the applicant to the City of Goleta prior to and during grading.

The applicant shall include pervious surfaces in the project design in key areas, such as adjacent to concrete walkways and road surfaces, to enable surface runoff to percolate into the ground to the maximum extent feasible.

All ground disturbances and vegetation removal shall be prohibited in the 100-foot setback established for isolated wetlands on Drainage B and 50-foot setback for riparian areas on Drainages A1, A2, and A within and associated with the unnamed eastern tributary of Devereux Creek to the maximum extent feasible. The grading limits and wetland setback shall be clearly shown on all pertinent construction plans and the former limits shall be clearly marked in the field with orange construction fence for the duration of construction. The road crossing and detention basins encroaching in wetland buffers shall be clearly marked in the field.

Plan Requirements and Timing. A grading and drainage plan detailing sediment and erosion control measures and clean-out areas, as well as depicting the location, dimensions, capacity, and other pertinent details of construction of the basins and permeable surfaces within the development sites shall be shown on construction plans for review and approval by City staff

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Section 4.4 prior to grading permit approval. Perimeter fencing shall be installed prior to any earth-moving activities.

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Monitoring. City staff shall periodically inspect the clean-out areas and basins throughout the construction phase to ensure they are functioning as planned and to ensure that construction products are not entering the basins. The Home Owners' Association will likely be responsible for periodic sediment clean-out in the retention basins and the City of Goleta shall monitor the status of these basins at least once each year. Fenced grading limits in relation to wetland and riparian buffers shall be monitored periodically throughout construction.

Mitigation Bio-14: Implementation of the Ellwood-Devereux Coast Open Space Plan. The Ellwood-Devereux Coast Open Space Plan includes measures for protection and management of biological resources in the Ellwood Mesa Open Space area. These measures are summarized in Section 3.0 of this EIR. Proposed management actions related to biological resources are divided into management programs that address different sensitive resources including:

- Monarch Butterfly Population and Habitat Management Opportunities
- Ongoing Snowy Plover Management at the COPR
- Riparian Habitat Enhancement and Restoration Opportunities
- Vernal Pool Enhancement and Restoration Opportunities
- Native Grassland Enhancement and Restoration Opportunities
- Coastal Bluff and Dune Scrub Enhancement and Restoration Opportunities
- Special-Status Plant and Wildlife Species Management Opportunities

Parking lot development and Anza Trail widening are the only associated Class II impacts in the Ellwood Mesa Open Space area and mitigation is proposed onsite through implementing restoration in the closed trails described in the Ellwood-Devereux Coast Open Space Plan. Implementation of any offsite mitigation described in Mitigation Measures Bio-1 through Bio-12 within the Ellwood Mesa Open Space area will be the responsibility of the City, but would be funded partially by applicant-paid mitigation fees.

4.4.3.5 Residual Impacts

The mitigation measures listed above would mitigate the Class II impacts. Upon implementation of these mitigation measures, the residual impact for Class I impacts would still be significant. Refer to Table 4.4-7 for a summary of residual impacts.

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Table 4.4-7. Summary of Impacts and Mitigation

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Impact Number and Summary	Impact Classification ¹	Mitigation	Residual Impact ²
Comstock Homes Development			
Bio 1 (Southern Tarplant)	II	Bio 1 (Surveys and Revegetation) Bio 3 (Fencing) Bio 10 (Landscaping Plan) Bio 14 (Open Space Plan)	NS
Bio 2 (Snowy Plover)	II	Bio 2 (Contribute to COPR Funds) Bio 11 (Signage)	NS
Bio 3 (Monarch Butterfly)	I	Bio 3 (Fencing) Bio 5 (Construction Timing, Surveys) Bio 6 (Monarch Fund) Bio 7 (Fire Protection Plan) Bio 11 (Signage) Bio 12 (Eucalyptus Planting) Bio 14 (Open Space Plan)	S
Bio 4 (Raptor Foraging and Roosting)	I	Bio 3 (Fencing) Bio 4 (Construction Timing, Surveys) Bio 7 (Fire Protection Plan) Bio 8 (Grassland Mitigation Plan) Bio 11 (Signage) Bio 12 (Eucalyptus Planting) Bio 14 (Open Space Plan)	S
Bio 5 (Raptor Nesting)	I	Bio 3 (Fencing) Bio 4 (Construction Timing, Surveys) Bio 7 (Fire Protection Plan) Bio 14 (Open Space Plan)	S
Bio 6 (Other Special-Status Wildlife)	II	Bio 3 (Fencing) Bio 4 (Construction Timing, Surveys) Bio 7 (Fire Protection Plan) Bio 8 (Grassland Mitigation Plan) Bio 14 (Open Space Plan)	NS
Bio 7 (Common Wildlife)	III	Not applicable	III
Bio 8 (Wildlife Corridor)	III	Not applicable	III
Bio 9 (Native Grassland)	I	Bio 8 (Grassland Mitigation Plan) Bio 10 (Landscaping Plan) Bio 14 (Open Space Plan)	S
Bio 10 (Wetland/Stream Corridor)	II	Bio 9 (Wetland/Riparian Mitigation Plan) Bio 13 (Water Quality Protection) Bio 11 (Signage)	NS
Bio 11 (Exotic Plants)	II	Bio 10 (Landscape Plan) Bio 11 (Signage)	NS
Bio 12 (Water Pollution)	II	Bio 13 (Water Quality Protection)	NS
Coronado Butterfly Preserve			
Bio 13 (Proposed Trails)	III	Not applicable	III
Bio 14 (Closed Trails)	IV	Not applicable	IV
Bio 15 (Rezone)	IV	Not applicable	IV
Phelps Ditch Trail			
Bio 16 (Phelps Ditch Trail)	III	Not applicable	III
Bio 17 (Public Access Management)	IV	Not applicable	IV

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Table 4.4-7. Summary of Impacts and Mitigation (Continued)

Impact Number and Summary	Impact Classification ¹	Mitigation	Residual Impact ²
<i>Ellwood Mesa Open Space</i>			
Bio 18 (Proposed Trails)	III	Not applicable	
Bio 19 (Anza Trail Widening)	II	Bio 14 (Open Space Plan)	NS
Bio 20 (Closed Trails)	IV	Not applicable	IV
Bio 21 (Parking Lot –Short Term)	II	Bio 14 (Open Space Plan)	NS
Bio 22 (Parking Lot – Long Term)	II	Bio 14 (Open Space Plan)	NS
Bio 23 (Rezone)	IV	Bio 14 (Open Space Plan)	IV
<i>Cumulative</i>			
Bio 24 (Wildlife)	I/II ³	Bio 14 (Open Space Plan)	S/NS ³ (plover)

¹ The following categories are used for classifying impacts to biological resources:

Class I: Significant adverse impacts that cannot be feasibly mitigated or avoided. If the project is approved, decision-makers are required to adopt a statement of overriding consideration, pursuant to CEQA Section 15093, explaining why project benefits outweigh the disturbance caused by these significant environmental impact or impacts.

Class II: Significant adverse impacts that can be feasibly mitigated or avoided. If the project is approved, decision-makers are required to make findings pursuant to CEQA Section 15091, that impacts have been mitigated to the maximum extent feasible by implementing the recommended mitigations.

Class III: Adverse impacts that are less than significant. These impacts do not require that findings be made.

Class IV: Beneficial impacts.

² NS = Not significant (following application of mitigation)

S= Significant (following application of mitigation)

³ Class II (not significant) impacts are associated with the western snowy plover. All other cumulative impacts are Class I (significant).